A UNITED STATES DEPARTMENT OF COMMERCE PUBLICATION

Incorporating *International Commerce*

AUGUST 9, 1971

Commerce Today

Coming Developments in Business and Technology

FROM THE FIRST METRIC STUDY

Weights and Measures may be ranked among the necessaries of life to every individual of human society. They enter into the economical arrangements and daily concerns of every family. They are necessary to every occupation of human industry; to the distribution and security of every species of property; to every transaction of trade and commerce; to the labors of the husbandman; to the ingenuity of the artificer; to the studies of the philosopher; to the researches of the antiquarian; to the navigation of the mariner, and the marches of the soldier; to all the exchanges of peace, and all the operations of war. The knowledge of them, as in established use, is among the first elements of education, and is often learned by those who learn nothing else, not even to read and write. This knowledge is riveted in the memory by the habitual application of it to the employments of men throughout life.

John Quincy Adams
Report to the Congress, 1821

A Metric America—
A Decision Whose Time Has Come

FROM THE SECRETARY

U.S. Technology And The Trade Balance

Many of the factors that contribute to our emerging unfavorable trade balance are not within our control, but continued development of high technology is an element which we can influence, to our great benefit in world markets.

High technology goods already are the best earners in our balance of trade. They may hold our best hope of maintaining an adequate trade position in the years to come.

Technology has always been a cornerstone of the U.S. economy.

Over the past century our work force has been the highest paid in the world, partly because technology made it possible. Armed with increasingly sophisticated machines and equipment, Americans long ago surpassed the productivity of all our competitor nations.

Changes

Since 1950, however, the situation has been in reverse, slowly at first, and recently at a very accelerated rate.

- From 1965 to 1969, productivity in the United States increased by 1.7 percent, as compared with a 4.5 percent increase in Europe and a 10.6 percent growth in Japan.
- Other nations are investing significantly higher percentages of their GNP in research and development, and in fixed assets, than we are.
- Because their wage costs are lower others can purchase more R&D per dollar than we can, and for us as the leading nation it takes a greater R&D effort at much greater cost to find innovations to stay ahead.
- Government incentives—grants, loans, subsidies, tax exemptions, credits, and accelerated depreciation—have stimulated new technology in most major developed nations.
- Private arrangements—licensing, joint ventures, multi-national companies and others—have led to much industrial growth in other countries based on borrowed technology.
- The share of foreign applications for U.S. patents has grown from 20 percent in 1961 to over 30 percent in 1969.
- Finally, the United States is faced with critical differentials in labor costs. In 1970 Japan's labor costs were only 26 percent of U.S. levels; for the United Kingdom, West Germany and Canada the levels were 37, 54 and 83 percent, respectively.

All these factors make it increasingly hard for American producers to hold their own against foreign manufacturers at home and abroad.

The U.S. balance of trade in high technology goods already has begun to dwindle with Europe and Canada, and is in a deficit condition with Japan.

The impact could become greater in the future.

Government action

The magnitude of the problem is such, and developmental risks are so great, that industry alone no longer can undertake the full task of maintaining our technological lead.

The problem has become a proper sphere for governmental action.

Government should consider the possibilities of financial incentives for technology; modernization of anti-trust laws which do not burden our foreign competitors; and new rules for industrial standards—voluntary and mandatory, Federal and local—governing performance and materials.

Considerable analysis by the Executive and Legislative branches of government is necessary to settle upon a combination of factors which will maintain the eminence of American technology in world markets.

It may take the combined wisdom and resources of government and business to maintain an adequate technological lead in the years to come.

Maurice H. Stans

Commerce Today

Incorporating *International Commerce*

Vol. I, No. 22 August 9, 1971

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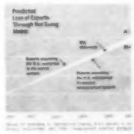
Three-year metric study report goes to Congress recommending conversion from the customary measurement system over a ten-year period.



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COVER: *John Quincy Adams sent an eloquent report to the Congress 150 years ago, a part of which concerning weights and measures appears here, recommending U.S. adoption of the metric system. His was the first metric study. Now, as the story beginning on Page 4 reports, the most recent metric study has been sent to the Congress with the same recommendation.*

U.S. DEPARTMENT
OF COMMERCE

MAURICE H. STANS
Secretary

JAMES T. LYNN
Under Secretary

B. R. LITTIN
Director of Public Affairs

DICK EVANS
Editor

CLARENCE M. ZENS
Associate Editor, International Commerce

RICHARD BALENTINE
Associate Editor, Science and Technology

ARTHUR McDERMOTT
Associate Editor, Domestic Business

AMERICO A. W. FAVALE
Coordinator of Graphics

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ECONOMIC
HIGHLIGHTS

Homebuilding Rolls Along Toward Goal Of Two Million New Units For This Year

Economic Highlights is prepared by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).

The nation's homebuilding industry is now operating at the highest rate in 20 years, and it seems likely that the ambitious 1971 goal of 2 million new housing starts will be met or perhaps exceeded. Moreover, even this high level probably will be surpassed next year.

The success story in housing over the past 18 months has resulted from a combination of (1) an unprecedented supply of funds for mortgages, (2) the strongest demand for housing in many years, (3) the availability of resources for homebuilding, (4) strong Government financial support, and (5) as an added factor in the first half of this year, the general expansion in the economy.

New housing starts have risen from an annual rate of 1¼ million units in the first quarter of 1970 to almost 2 million in the second quarter of 1971. This does not include mobile home units, which have advanced about 18 percent so far this year and were close to the half-million mark in the second quarter. Thus, total housing units are now being built at an annual rate close to the 2.6 million needed per year to meet the nation's housing goal for the 1970s.

The underlying demand for housing is strong and is being augmented by the rapidly increasing number of young adults. Vacancy rates are low—far below the levels of the early and mid-1960s—and have not increased despite the sharp rise in homebuilding. Other indications of strong demand are the decline in the inventory of unsold homes relative to sales and the increasing backlog of housing permits still to be used.

The flow of funds into savings institutions, while slightly lower in the second quarter, continues to run at an extraordinarily high rate. New mortgage commitments also have moved upward over the past 18 months and showed an exceptionally large jump to an annual rate of almost $50 billion in the second quarter.

Mortgage interest rates remain well below the levels of a year ago, and other terms on new mortgages have become increasingly favorable for buyers. The average maturity for mortgages has lengthened significantly and borrowers have been able to get loans covering a larger proportion of the price of a home.

Housing activity has, in fact, expanded even more this year than indicated by the rise in starts because more of the new homes are in the larger size categories. This is reflected in the increase of several thousand dollars in the median sales price of new homes since its low point late last year.

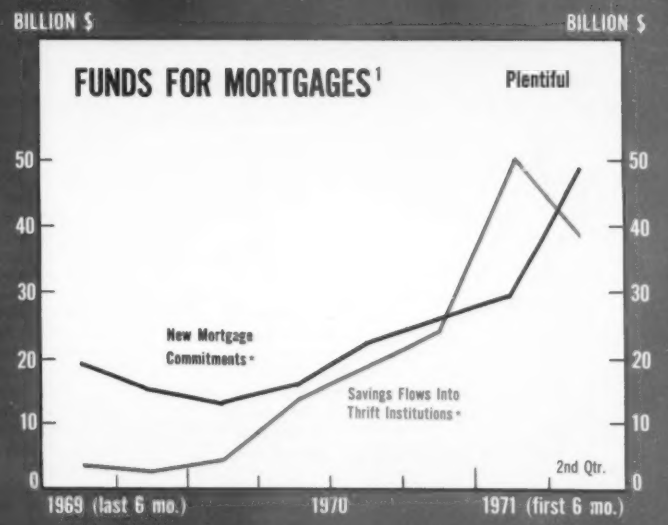
Housing activity helped sustain the economy during the slowdown of 1970, and promises to continue to be a major source of strength as the current expansion proceeds.

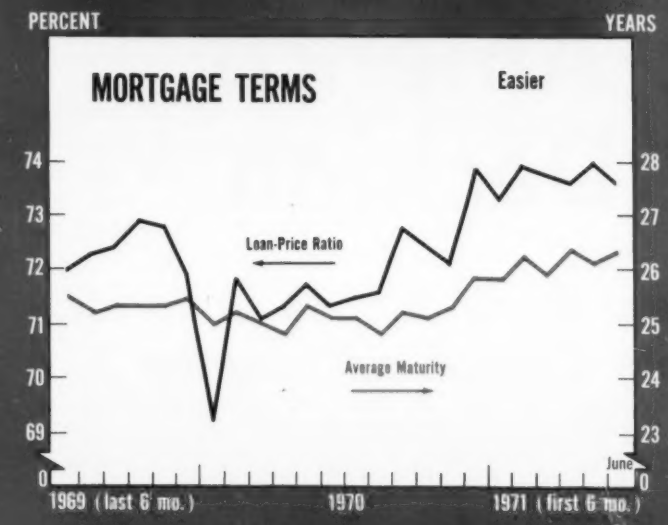
Other Economic Developments

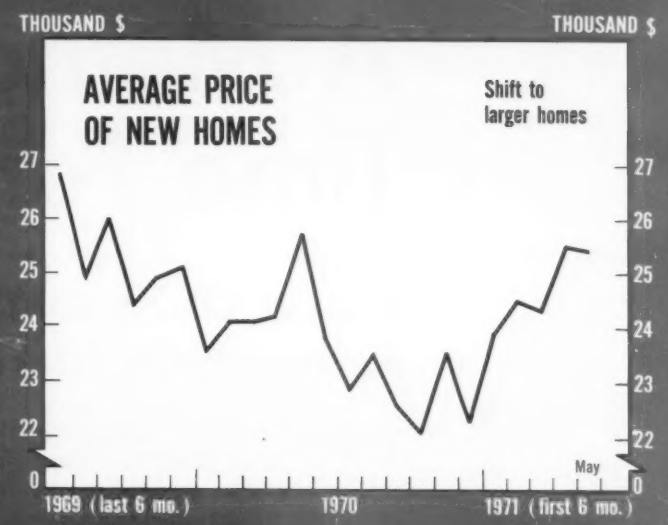
While increases in the Consumer Price Index continue to show wide swings on a month-to-month basis, the half-year changes show a significant slowing in the rate of inflation.

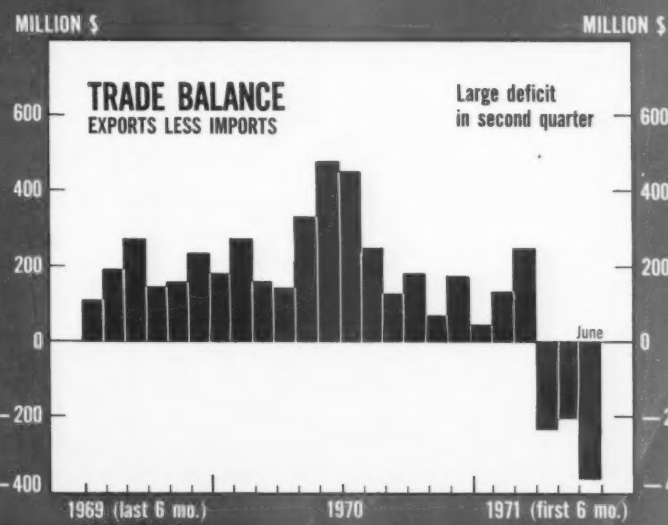
The Nation's foreign trade balance deteriorated markedly in the second quarter. While part of the deficit was due to special factors, recent trends in exports and imports underscore not only the necessity of restoring domestic price stability but also the need to spur technological advance and productivity in order to make our goods more competitive in world markets.

Latest Indicators









* Annual rates

[1] Savings flows are to savings and loan associations and mutual savings banks. Commitments are those made by S&L's and New York State mutual savings banks. Mortgage terms and average price of new homes are not seasonally adjusted.

Commerce Today
August 9, 1971
Vol. 1, No. 22

A Metric America: Time For Decision

Report Of Three-Year Study Sent To Congress, Recommends 10-Year Conversion Program

SOME GROUPS THAT PARTICIPATED IN THE
METRIC STUDY

The United States should at last join the majority of world nations by changing to the International Metric System through a coordinated 10-year national program at the end of which the nation will be predominantly metric.

That is the recommendation of the recently-completed, comprehensive U.S. Metric Study conducted over the past three years by Commerce's National Bureau of Standards.

It's up to Congress

The decision now rests with the Congress which instigated the study whether or not the nation should gradually forsake its customary foot/pound/gallon system for meters, kilograms and liters.

Commerce Secretary Stans has sent the report to the Congress with the following recommendations:

- That the Congress assign the responsibility for guiding the changeover to a central coordinating body responsive to all sectors of American society;
- That within this guiding framework, detailed plans and timetables be worked out by these sectors themselves;
- That early priority be given to educating every American schoolchild and the public at large to think in metric terms;
- That immediate steps be taken by the Congress to foster U.S. participation in international standards activities;
- That in order to encourage efficiency and minimize the overall costs to society, the general rule should be that any changeover costs "lie where they fall."
- That there be firm government commitment to this goal.

"The Department of Commerce stands ready to provide whatever further assistance the Congress may require in working out a national plan and putting it into effect," the Secretary wrote the Congress.

Thousands took part

Thousands of individuals, firms, and organized groups participated in the study. The investigation involved public hearings, supplemented by surveys on international trade, business and industry, education, national security—almost every activity of society.

Representatives of business, labor, trade associations, consumers, education and the professions answered thousands of questionnaires, and engaged in thousands of personal interviews.

"I am convinced that after nearly two hundred years of national debate on this issue, the time has come for a national decision on a positive course of action," says Dr. Lewis M. Branscomb, Director of the National Bureau of Standards.

"In all of these years that the metric question has been considered in this country, it has never been clear to most Americans what the question entailed," says Daniel V. DeSimone, director of the U.S. Metric Study and author of its final report, *A Metric America: A Decision Whose Time Has Come.* "This time," he adds, "as many of us as possible should be given the basis for understanding what is really involved and what the alternatives are. That is the purpose of this report."

In addition to the final report, 12 volumes of detailed reports were prepared by members of the Metric Study Group to describe the investigations they made. Published as part of the record of the Study, they cover the manufacturing industry, nonmanufacturing businesses, education, consumers, international trade, engineering standards, international standards, the Department of Defense, Federal civilian agencies, commercial weights and measures, and a history of the metric system controversy in the U.S.

Comparing the Commonest Measurement Units

Approximate conversions from Customary to metric and vice versa.

	When you know:	You can find:	If you multiply by:
LENGTH	inches	millimeters	25
	feet	centimeters	30
	yards	meters	0.9
	miles	kilometers	1.6
	millimeters	inches	0.04
	centimeters	inches	0.4
	meters	yards	1.1
	kilometers	miles	0.6
AREA	square inches	square centimeters	6.5
	square feet	square meters	0.09
	square yards	square meters	0.8
	square miles	square kilometers	2.6
	acres	square hectometers (hectares)	0.4
	square centimeters	square inches	0.16
	square meters	square yards	1.2
	square kilometers	square miles	0.4
	square hectometers (hectares)	acres	2.5
MASS	ounces	grams	28
	pounds	kilograms	0.45
	short tons	megagrams (metric tons)	0.9
	grams	ounces	0.035
	kilograms	pounds	2.2
	megagrams (metric tons)	short tons	1.1
LIQUID VOLUME	ounces	milliliters	30
	pints	liters	0.47
	quarts	liters	0.95
	gallons	liters	3.8
	milliliters	ounces	0.034
	liters	pints	2.1
	liters	quarts	1.06
	liters	gallons	0.26
TEMPERATURE	degrees Fahrenheit	degrees Celsius	5/9 (after subtracting 32)
	degrees Celsius	degrees Fahrenheit	9/5 (then add 32)

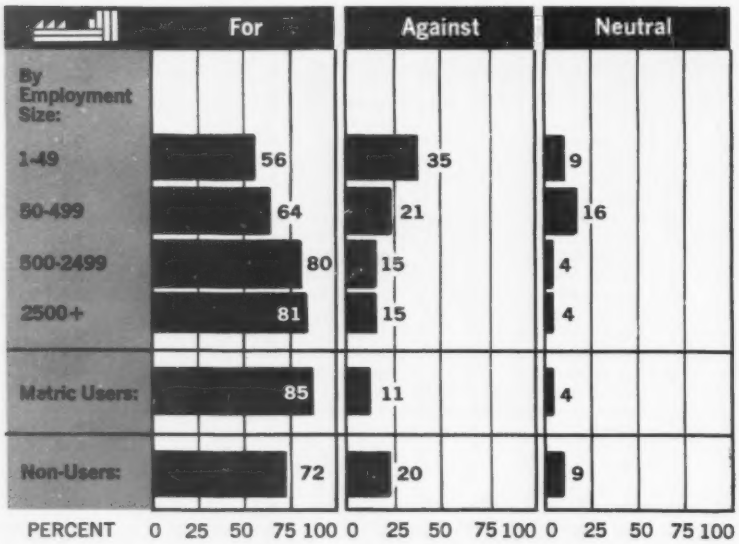
Wasn't widely used

In considering metric conversion previously, the Congress postponed action often because the metric system was not then in use by the nation's major foreign trading partners.

Today, however, the United States finds itself one of the few remaining non-metric countries and certainly the only world power still adhering to the English system. Japan converted ten years ago. Britain is

Manufacturers Attitude Toward More Metric In the United States as a Whole

(Weighted by Size of Company)



halfway through its changeover and Canada is ready to begin its conversion.

Metric conversion should not be done precipitously or without a national plan of action, says the report. It calls for a carefully planned transition in which all sectors of society participate voluntarily.

The change would not come quickly nor without difficulty. Already certain elements of society use the metric system. More than a decade ago the pharmaceutical industry converted to milligrams, grams, and milliliters. Physicians, whose medical school training in chemistry is metric, learned easily enough to write prescriptions in metric units, and pharmacists learned to fill them.

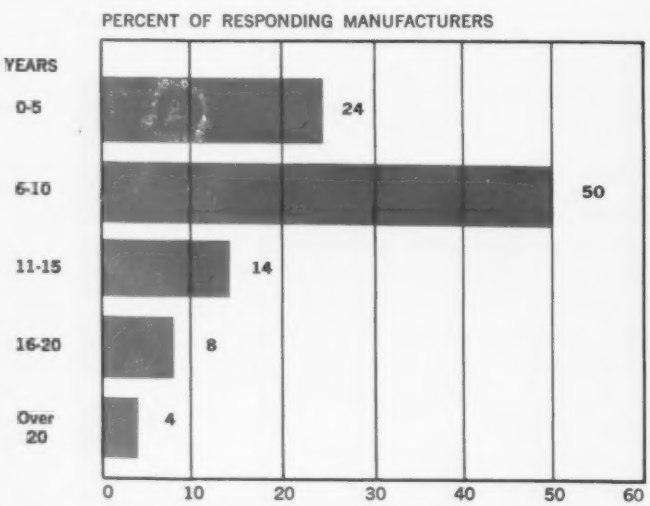
With few exceptions, the language and tools of U.S. science are entirely metric. In mathematics and science education, throughout most of the country, the metric system is taught to some extent, even to very young children. Military ammunition is measured metrically and one of the largest government agencies, the National Aeronautics and Space Administration, decided last year to use International Metric in its documents and reports.

Metric inroads

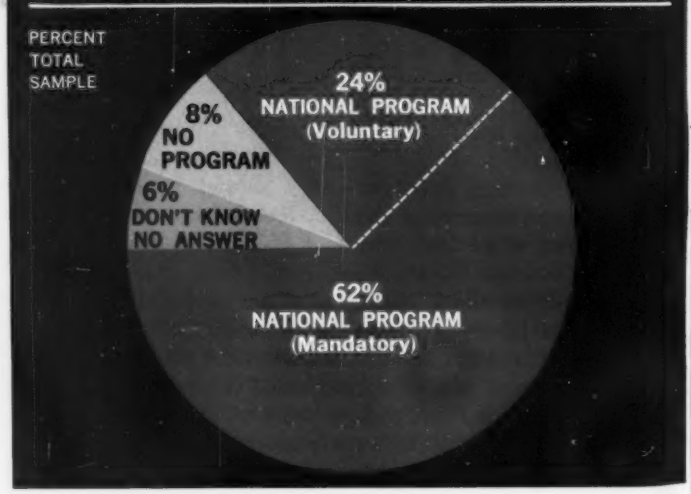
Automobile mechanics have added metric tools to their toolboxes because foreign vehicles have metric parts. In fact, some U.S.-produced automobiles are being assembled with engines, transmissions, and other parts built to metric specifications. Statutory standards for automobile emissions of hydrocarbons, carbon monoxide and oxides of nitrogen read in "grams per mile," another metric infiltration.

Swimming pools for outdoor competition are being built to metric dimensions so that U.S. swimmers can practice for international metric-distance events. American skis, made to standard feet and inch lengths a few years ago, are now sold in centimeter sizes. The width of photographic film is expressed in

Manufacturing Industry Survey: Choice of Optimum Period for Metric Changeover



Non-Manufacturing Businesses: If Increased Metric Usage Is in "Best Interest of the United States," What Course of Action?



millimeters, even though sprocket holes are spaced six to an inch.

The question is not whether or not the U.S. should progressively replace its present measurement language with metric, the report points out, but rather, how and when America will choose to make the change. Also, should the nation do so by plan over a comparatively brief period of ten to 15 years or simply drift toward a metric status over a longer period with some parts of the society inadequately prepared for the increasing prevalence of metric usage.

The difficulties and costs involved in converting will have to be faced as metric usage reaches substantial proportions in this country. Without a reasonable plan, the nation would experience all the difficulties of dual inventories, dual education, dual thinking, dual sets of tools, and dual production.

Pivotal to preparing the nation for increased use of metric are two major activities which the study suggests be done immediately. The first is education. Every schoolchild should have the opportunity to become as conversant with the metric system as he is with the present measurement system. The second is international standards. U.S. industrial practices should be much more vigorously promoted in international negotiations that are beginning to establish engineering standards on a worldwide basis and will increasingly affect world trade.

Making the change

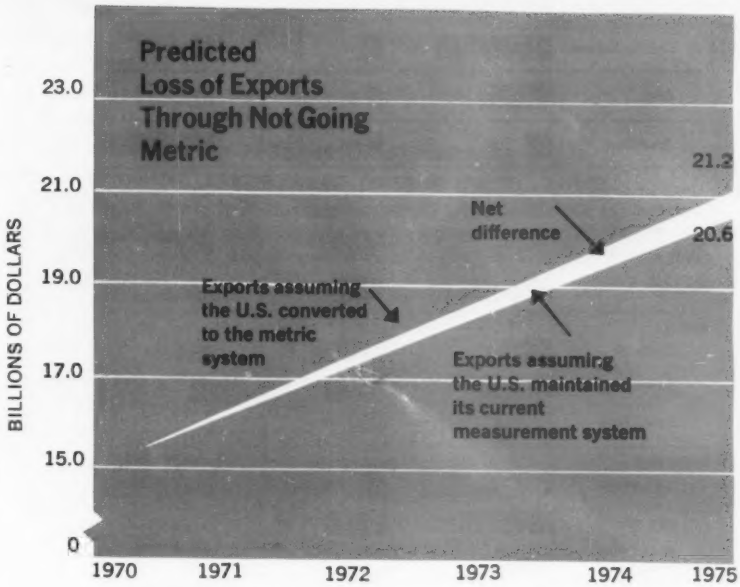
But to the average citizen, making the change to metric would be dependent upon the nature of the item being used. In most cases, things would be replaced with new metric models only when they wore out or became obsolete. This would be true, for example, of existing buildings, aircraft carriers, railroad locomotives, power generating plants, and even milady's hair dryer.

In the factory, a pump might with careful maintenance last ten years before needing replacement. But if a critical part failed after five years, the user might decide to buy a new pump of improved design and lower running cost, rather than fix the old one. If metric pumps were available, the new pump would be one built to metric standards.

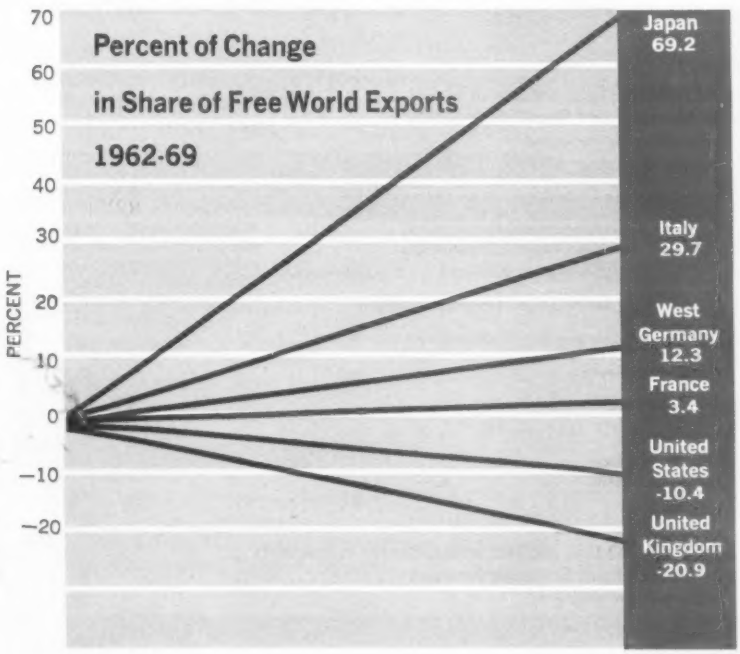
In real estate, there would be no reason to rewrite property deeds in meters and hectares instead of yards and acres until the property changed hands and was resurveyed.

Property such as railroad tracks would never be torn up to relate them to some round-number metric gauge.

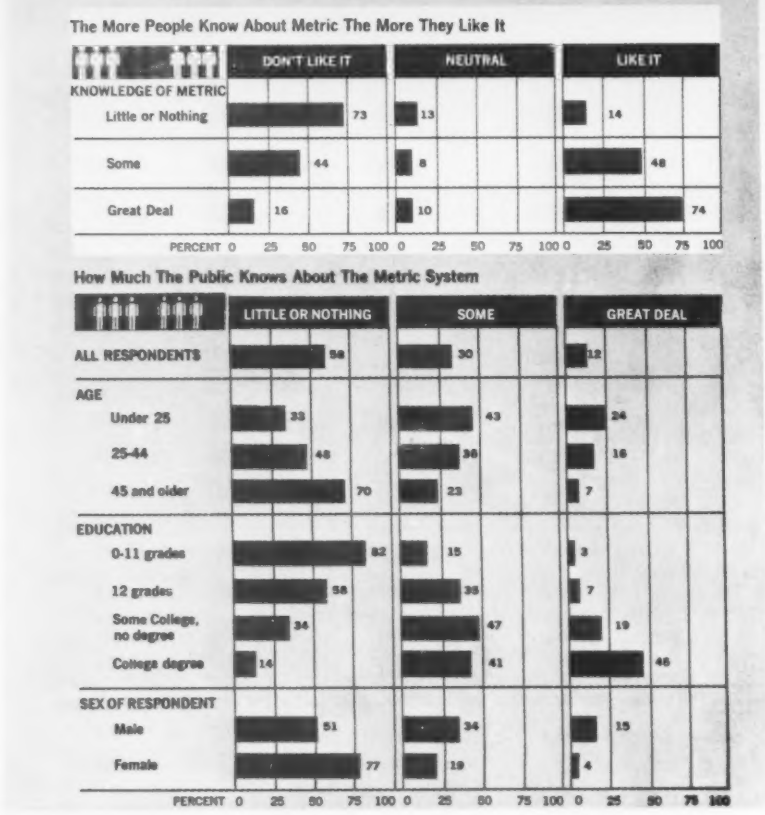
It is in international trade where the difference between U.S. and foreign measurements is felt most keenly. U.S. engineering standards are incompatible with some foreign



(Based on estimates of international trading firms dealing in machinery, instruments, and other measurement sensitive products)



PUBLIC ATTITUDES TOWARD METRIC



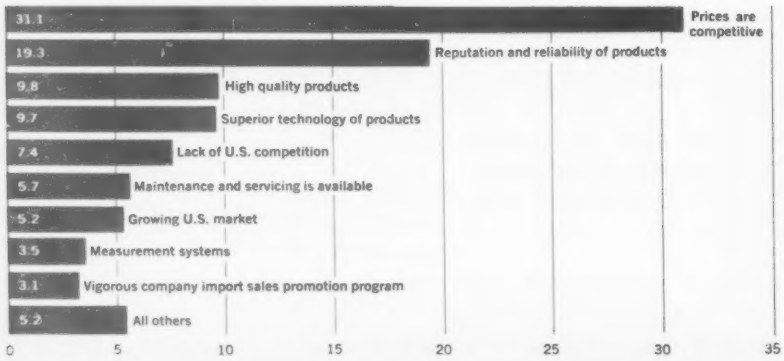
IMPORTS

Factors DETERRING U.S. Imports of Machinery, Instruments, and Other Measurement Sensitive Products

(Percent of total rankings by respondents)

Factors PROMOTING U.S. Imports of Machinery, Instruments, and Other Measurement Sensitive Products

(Percent of total rankings by respondents)



standards thus hampering export of many American products. A potential foreign customer may prefer a certain U.S. machine but be less likely to import it if standard parts for repair and maintenance are not readily available in his country.

Imports of materials and equipment are increasing, and foreign subsidiaries of U.S. companies are having to develop standards programs that are independent of the parent company, because U.S. customary standards do not adequately meet their needs.

Impact on trade

Although the metric question has hardly affected the amount of U.S. trade, the study points out, there are indications that the U.S. share of the world market is diminishing. This is partly because Western European nations have been steadily lowering barriers of trade among themselves and these will become lower still as national differences in engineering standards are eliminated. However, since Western Europe is exclusively committed to the metric system, the standards they agree upon will be metrically based. This effort will further strengthen Western Europe as a unified market and will tend to reduce the U.S. share in its trade.

The rise of giant multinational corporations, many of them either partly or entirely owned by U.S. companies, will help to bring about worldwide uniformity of engineering standards. They are already assembling such complex products as automobiles, computers, and factory machinery from components made in different countries. In effect, this huge but almost invisible segment of American industry is already going metric. Small companies that supply them will have to go along. When increased use of metric in large companies and government activities reaches a substantial level, then workers and small companies may find themselves at a competitive disadvantage.

Simplify procurement

Military allies would welcome a U.S. decision to go metric, the report points out. The compatibility and interchangeability of equipment between the U.S. and its allies would expedite repairs, make possible support in areas where support is now nonexistent, simplify procurement across national boundaries, and increase communication of all data, including designs, operations, and training.

In the space program, at a time when the U.S. and U.S.S.R. are beginning discussions to standardize the escape hatches of space vehicles so that either nation can rescue an astronaut or cosmonaut, international standardization is becoming essential.

To accomplish conversion to the metric system, the report recommends that:

- An existing government agency or a specially-appointed national commission serve as a central coordinating body;
- Since international standards will increasingly influence world trade, it is urgent that the U.S. begin now to participate more vigorously in world standards making;
- Citizens need to be informed of what the change would mean in their jobs and everyday lives. Children should be taught metric as the primary language of measurement;
- Post Offices display a dual set of rates and begin charging postage by grams instead of by ounces, as soon as its scales are changed;
- Goods be labelled in both customary and metric units;
- Small businessmen, including self-employed craftsmen, be properly informed and their interests adequately represented. The metric system should be brought into all vocational and on-the-job training programs;
- Engineering standards be reevaluated;
- Accommodations be made to permit cost-saving coordination while avoiding illegal restraints on trade;
- Cooperation be carried out to the fullest extent possible with Canada, a major trading partner, which is changing to metric;
- The cost of going metric be borne in such a way as to minimize the overall cost to the nation and to avoid bureaucratic waste;
- All machinery be continued in use or at least phased out only when they wear out or become obsolescent with careful planning and an adequate transition period.

Although the cost and inconvenience of a change to metric will be substantial, according to the report, it concludes that such change would be in the best interests of the country. The essential point is that it will cost the nation much more if it changes to metric without a plan than if it does it with one.

Adams' attempt

Since the founding of the Republic, efforts have been made from time tc time to convert the nation's measurement language to metric. John Quincy Adams was the first to give serious consideration to adoption of the metric system and wrote an eloquent report on the question. Down through the nation's history others have attempted to bring it about. Actually, by 1893 the U.S. became an officially metric nation when the Secretary of Treasury declared the new metric standards to be the nation's "fundamental standards" of length and mass. The yard, the pound, and other customary units were defined as fractions of the standard metric units.

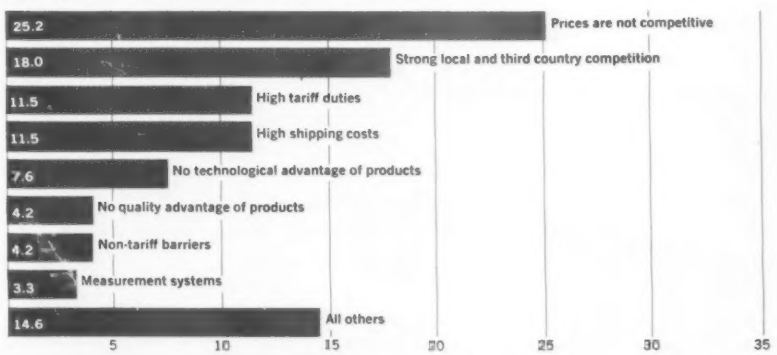
But it wasn't until the arrival of the space age when the nation's attention was suddenly focused on science and technology and when in 1965 Britain decided to abandon inches and pounds that the government again began to consider seriously the desireability of increasing the use of the metric system, the predominant measurement language of the world.

Now with the completion of the present study, the Congress faces a decision whose eventual impact could touch every American citizen and every sector of society.

EXPORTS

Factors DETERRING U.S. Exports of Machinery, Instruments, and Other Measurement Sensitive Products

(Percent of total rankings by respondents)



Factors PROMOTING U.S. Exports of Machinery, Instruments, and Other Measurement Sensitive Products

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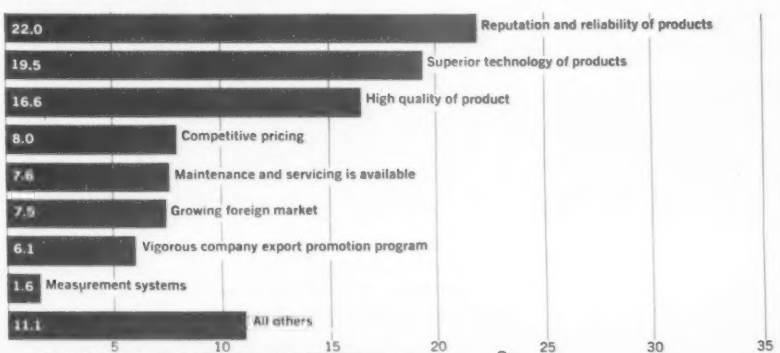


Working Partnerships Give U.S. Two-Way Window On Firms' Needs

Nationwide Program Now Is Bringing Business Federal Government Services On Local Levels

NEW HEADQUARTERS—*The Latin Chamber of Commerce officially opened its new offices in Florida on the same day it became an Associate Office. The Chamber serves Spanish-speaking businessmen.*

In Miami, Spanish-speaking businessmen will attend seminars that will teach them how to use 1970 census figures, how to obtain government procurement 8(a) contracts, and how to fully utilize the services available to them from the government.

In Albuquerque, a concentrated drive has been launched to create jobs for the unemployed in that area. Businesses in the city have pledged help.

In Reno, the construction of an office building at the Reno-Sparks Indian Colony will begin at once, and when finished one of its prime tenants will be the Nevada Inter-Tribal Council's Administrative Division.

In Phoenix, the end result of the Yuma Air Cargo Seminar is the development of an air cargo business from Yuma of winter produce, dates and some exotic citrus fruits to all parts of the world.

All of these activities are the result of a partnership between a government agency and Chambers of Commerce, World trade clubs, trade associations and professional or-

ganizations which serve as Associate Offices to the agency.

In Miami, the Associate Office involved with the seminars is the newly so-designated Latin Chamber of Commerce; in Albuquerque, the campaign to find jobs for the unemployed has been launched by the Albuquerque Chamber of Commerce, an Associate Office; in Reno, the project is backed by the Reno Sparks Tribal Council, a Commerce Associate Office; and in Phoenix, the Yuma County Chamber of Commerce, as an Associate Office, sponsored the seminar.

Service at local levels

The federal agency that is responsible for the Associate Office liaison is the Commerce Department. Commerce has 42 Field Offices throughout the United States and Puerto Rico (a directory of these offices may be found on the inside back cover of each issue of *Commerce Today*) to bring the services of the Department closer to the people who need them. Associate Offices extend these services over even wider localities. These offices become two-way windows, scattered all over the country, overlooking urban and rural areas of the Nation, and providing the Federal government more clearly focused pictures of what needs to be done to assist the American businessman—large or small—in his own locale.

The businessman, in turn, can look in these windows or walk in the doors of the Associate Office in his community to find the business information and the national government programs available to him where he lives—even if no Department Field Office is situated in that area.

Although the Associate Office Program is only a little over a year old, it is a revised edition of a program of cooperation between government and business that has been in existence for 55 years. During that period selected Chambers of Commerce, World trade clubs and state agencies had been appointed as Cooperative Offices to Commerce, acting as liaisons between the Field Offices and the business community, alerting Commerce to local business requirements, activities, interests and problems so that the Department could more fully meet the needs of that area. They also made Commerce materials and services available on a first-hand basis to business.

These services have been continued by the new program, and they have also been

LEARNING THE WAY—*Members of the business committee of the Ute Indian Tribe spent two days in the Salt Lake City Field Office for orientation meetings on the new duties and responsibilities they assumed under the Associate Office Program.*

strengthened. In addition, under the new Associate Office program, the Office of Business Services has widened its support by:

- Generating more interest, support and assistance from Associate Offices in export development, overseas trade promotion and international business development.
- Bringing in minority Chambers of Commerce and minority business development organizations, interested in assisting the Department with specific programs and goals.
- Coordinating with selected Associate Offices the continued sponsorship/co-sponsorship of important seminars, meetings and programs that have national, area, or statewide significance.
- Working with all Associate Offices to develop Jobs For Veterans Task Forces to help the returning serviceman find employment.
- Assisting Associate Offices in finding ways to help establish minority business enterprise in their areas.

When Secretary Stans established the new program in March of last year, he said, "Private enterprise today faces challenging new economic and social opportunities and problems. In order to carry out its mission in serving the free enterprise system, the De-

INDIAN DESIGN—*Colorful modern desks are being manufactured in Utah by the Ute Indian Tribe, the first Indian tribe to become an active member of the Commerce Department Associate Office Program.*

partment of Commerce welcomes the voluntary relationship of the Associate Office Program."

More than a year after its inception, the Associate Office Program has shown strong progress towards its goals. For the first time, minority organizations have become active participants in the program. In fact, more than 40 minority groups have joined forces with the Department to become Associate Offices.

Two firsts for Dallas

The first minority organization to become an Associate Office was also the first organization to be designated as an Associate Office—the Dallas Negro Chamber of Commerce.

The Director of Commerce's Office of Business Services, Jack O. Padrick, pointed out that for "years the Department of Commerce Dallas Field Office enjoyed the support of the officers and members of the Dallas Negro Chamber of Commerce. The Chamber even served as co-sponsor with the Field Office for a number of meetings on minority business."

"Now," he continued, "a closer working relationship has evolved between the two, as the result of the Chamber becoming another arm of the Department in the field."

Alliances are also being formed with Indian tribes, Mexican-American organizations, Spanish-speaking Chambers of Commerce and others.

Just two months ago, the Latin Chamber of Commerce in Florida became an Associate Office. The presentation of the certificate designating the Chamber as a liaison of Commerce coincided with the dedication of the Chamber's new building in Miami.

The Latin Chamber primarily serves the

Spanish-speaking population of over 800,000 who live in Florida.

A record set

Dr. Claudio F. Benedi, Commerce International Trade Specialist who represented the Department at the presentation of the Associate Office certificate and the opening of the Chamber's new headquarters, said that the Latin Chamber has set a record many other organizations would like to achieve. "The Latin Chamber of Commerce," he said, "was founded just six years ago by 17 Latin American businessmen and industrialists in the Miami area. Today it has a membership of more than 700 and is continuing to grow."

He added that this Chamber has been instrumental in assisting Cuban refugees in Florida become productive citizens of the state. The new partnership with Commerce will augment the services it has been giving to the Spanish-speaking business in Florida.

"For the past two years," Benedi continued, "the Latin Chamber has joined forces with the South Florida Regional Export Expansion Council and the Miami Field Office in co-sponsoring the annual International Business Symposium."

Workshops scheduled

This fall, according to Roger La Roche, Director of the Miami Field Office, the Latin Chamber of Commerce is co-sponsoring with the Field Office three separate workshops on the uses of Commerce materials and services for the Spanish-speaking business community in the area. Plans are also in the works for the new Associate Office and Commerce to jointly sponsor for these businessmen a series of international specialized workshops that will deal with marketing, export documentation and export financing.

To service the Spanish-speaking population in the United States (which now num-

RESERVATION PROGRESS—*A $5 million motel and recreation complex is being developed by the Ute Indian Tribe to help the reservation economy grow. Members of the tribe said the working partnership they enjoy with government through the Associate Office Program helps the tribe progress.*

bers 13 million) the Office of Business Services has plans under way to designate appropriate business organizations as Associate Offices in eight or nine other areas which will best serve this important segment of the population.

The President of the Latin Chamber, Manuel Balado, told Commerce officials that not only was the Latin Chamber honored to be selected as an Associate Office, but that "we welcome this opportunity to become of greater assistance to the businessmen in our area, through a true working partnership of business and the Commerce Department."

La Roche said that Florida, which had started out to become a tourist state, is fast developing its businesses and industries, and the Associate Office program in that state is helping with this new development. At present, seven Chambers of Commerce and two state development boards in Florida are part of the program.

First Indian Associate

The first Indian reservation to become an Associate Office was the Uintah & Ouray Indian Reservation, Fort Duchesne, Utah. Prior to this designation as an arm of Commerce last November, five members of the Ute Tribe spent two days in the Salt Lake City Field Office to become oriented with their new responsibilities.

The Ute Indian Tribe, a progressive and energetic group, is taking a very active part in bringing government services to their people to help them develop a business community on the reservation. The tribe has one of the largest beef cattle operations in the state, and now is also in business manufacturing desks and other types of furniture. A 42-unit motel is being built on the reservation with the help of government advise and counsel.

"The main goal of our Tribe," says Irene Cuch, a member of the Ute Tribe business committee which guides the Associate Office Program on the reservation, "is to get the tribal members employed and off welfare."

"Our partnership with the government as an Associate Office will help," she added.

State agencies are playing an important role as Associate Offices. For instance, in North Carolina, the State Department of Conservation and Development is a vital and active Associate Office. Joel New, Director of the Greensboro, N.C. Field Office stresses that this office has regularly participated and cooperated with Commerce in business promotions and in conducting conferences throughout the state that are designed to aid and assist businessmen in both the domestic and the international markets available to them. Twenty-eight conferences have been held this year, and 40 more are scheduled.

The Associate Office Program is a new and strengthened version of the tried and successful Cooperative Office Program of the Commerce Department, which has represented the longest continuous history of government-business cooperation throughout the United States.

Since its rebirth in 1970, not only have the former Cooperative Offices joined forces with the Office of Business Services to become Associate Offices, but more than 70 other Chambers of Commerce, trade associations, state agencies and minority organizations have been designated Associate Offices, swelling the ranks of this link to the businessman where he works and lives to more than 740 active members of the program across the country.

There are 22 Associate Offices in North Carolina.

New is part of a committee formed by the Office of Business Services in Washington to see how effective the program is becoming, and what needs to be done to make it an even greater service to the businessman in his own locale.

Survey forms have been mailed to Associate Office members to discover their reactions to the program. New said that some of the forms have already been returned, and that the comments include such statements as:

- ". . . no fault with the program. It is all we can ask for."
- ". . . I know that your inquiry was not circulated for applause, but we must say that the help and cooperation we have always received as an Associate Office from the Commerce Department, rates you compliments all over the Nation."

—Office of Business Services

Opportunities Are Seen For U.S.-Romanian Business Expansion

American Delegation Points To Easing Of Export Curbs, Romanian Officials Stress Joint Ventures

Current business opportunities in six nations across the Atlantic were the focus of talks with leaders in those countries by a team of Commerce Department trade officials led by Secretary Stans. This report covers the observations made at meetings in Romania in the spring. Reports on Ireland, Spain, Greece, and Iran were published in the May 31, June 14, June 28, and July 26 issues. The final report will discuss Austria. Department officials who accompanied Secretary Stans on the visit were Robert McLellan, Assistant Secretary for Domestic and International Business; Lawrence A. Fox, Deputy Assistant Secretary for International Economic Policy, and Tom McSpadden, Special Assistant to Mr. McLellan.

Rapidly expanding economic activities between the U.S. and Romania were reviewed when Secretary Stans and other Commerce Department officials met in Bucharest with Romanian leaders. During his discussions with President Nicolae Ceausescu and others on all aspects of U.S.-Romanian commercial relations, the Secretary announced a relaxation of U.S. merchandise export controls toward Romania.

In a case-by-case review of U.S.-Romanian business negotiations, Secretary Stans and President Ceausescu stressed the importance of consummating well-thought-out contracts which can serve as models for future business activity. They agreed to set up joint task forces which would continue each government's efforts to study ways of harmonizing the different economic, tax and legal systems of each country in future joint-venture contracts.

The Romanian leaders explained the recent policy and organizational changes in their foreign commercial relations, outlined their priorities for developing heavy industry and tourism, and sought continued Department of Commerce assistance in attracting American companies to Romania and in selling Romanian goods on the American market.

Trade increase

Romania has enjoyed an especially warm relationship with the United States highlighted by talks in 1960 to provide for reciprocal settlement of financial claims, a joint

communique in 1964 which called for the exchange of Ambassadors, and many high level visits including that of President Nixon to Romania in 1969 and Romanian President Ceausescu to the United States in 1970. From 1960 to 1970 two-way trade has grown from $2.5 million to nearly $80 million. A new export control policy, which places Romania on a similar basis as Yugoslavia for merchandise exports from the U.S., is expected to provide further opportunities for trade expansion. There are, however, certain remaining impediments to closer U.S.-Romanian commercial relations.

Policy initiatives

On the U.S. side, there does not exist U.S. Government export financing, investment guarantees, or most-favored-nation treatment for Romanian imports to the United States. Secretary Stans pointed out to his Romanian hosts that changes in U.S. trade policy require legislation from the Congress. If the Congress passes any of the pending bills which would authorize the President to grant Export-Import Bank financing, Agency for International Development investment guarantees, or most-favored-nation treatment for Eastern Europe, Romania will be one of the first to receive the President's authorization.

The Romanian Government has been making an effort to improve commercial groundrules under which foreign businessmen operate. On Jan. 27 the Romanian Council of State issued a decree authorizing the establishment of offices in Romania by foreign commercial representatives. The effective taxes on foreign representative's activities are scheduled at 5% of gross receipts. Thus far only one U.S. firm has an office in Romania, but many firms are exploring the possibility.

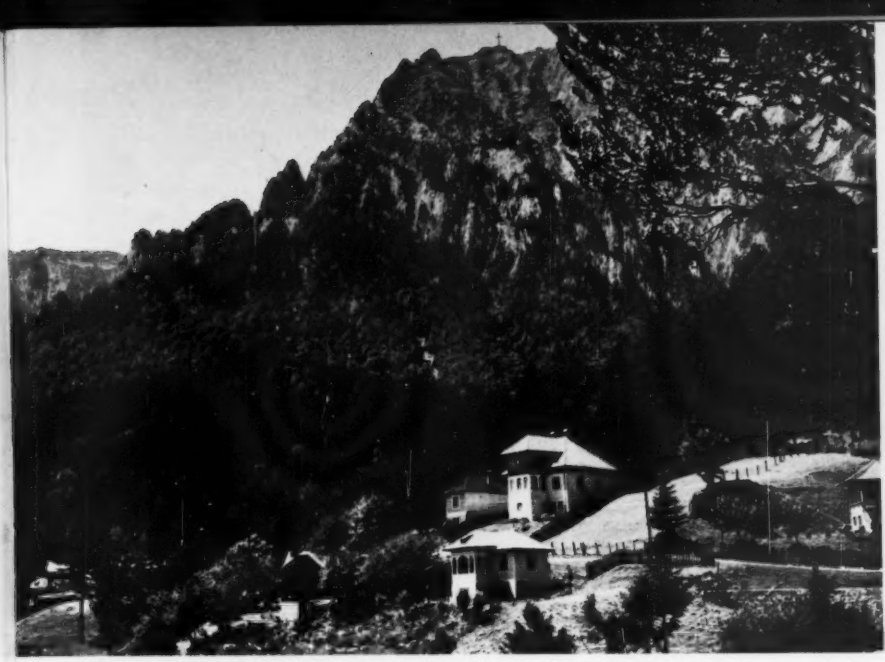
In March, the Romanian Government took the unprecedented step of allowing foreign firms to own equity in newly established Romanian firms. The Romanian investment law provides for up to 49% foreign ownership of the assets of a joint venture and guarantees unlimited profit repatriation according to the conditions worked out in the negotiations.

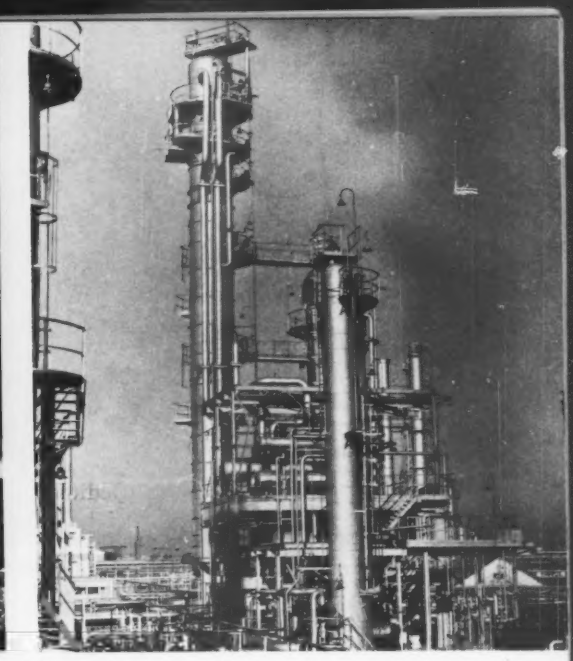
The U.S. firm of Robert B. Anderson Associates announced June 1 that it has consummated a joint venture with the Romanian Government through a corporation incorporated in the Bahamas which is designed to facilitate U.S. licensing and investment in Romania. As yet, no company from any Western country has participated in a manufacturing joint venture in Romania, but some active negotiations are in progress.

Investment priorities

Romania, which will invest one third of its national income over the next five years, is trying hard to diversify its largely agricultural and petroleum-oriented economy. Western know-how and capital, particularly

IN BUCHAREST—*From left, Commerce Secretary Maurice H. Stans, Ass't Sec'y Robert McLellan, and Deputy Ass't Sec'y Lawrence Fox discuss U.S.-Romanian relations with Ion Patan, Vice Chairman of Council of Ministers (right); on his right, Foreign Trade Minister Cornel Bertica.*





IN BUCEGI MOUNTAINS—*This summer and winter resort offers an alternative to Romania's Black Sea beaches (see picture, p. 18). Photo at right shows Brazi oil refinery project in which the U.S. firm, Universal Oil Products, Inc., found the Romanians to be competent and technically qualified partners.*

from the United States, are important ingredients to Romanian development, Secretary Stans was told, and he obtained a list of investment projects in which the Romanians would like U.S. companies to participate (see pages 18 and 19).

Secretary Stans acknowledged the fact that the Romanians must sell more on the U.S. market in order to develop a viable two-way trade relationship. Noting that in 1970 Romania imported five times more from the United States than it exported to the United States, he stressed the need for Romanian managers to come and study firsthand the marketing methods of U.S. firms.

The Secretary pointed out how each product should be tailored in its production, promotion, packaging, and distribution to the particular group of consumers with the greatest buying potential. The potential buyers of Romanian products should be determined through product and market research, with pilot tests in different cities. The Secretary said that the Commerce Department would continue to assist Romania in its effort to sell on the U.S. market through analyzing market potential and contacting potential distributors.

Secretary Stans suggested to his Romanian hosts that another way to compensate for Romania's balance of trade deficit with the United States is to attract more U.S. tourists. The number of U.S. citizens visiting Romania has more than doubled during the last 5 years, but remains small compared with the number of total Western tourists (see table below).

The Secretary offered Department of Commerce assistance in both promoting travel to Romania and in working with American firms on investments in new Romanian tourist facilities. U.S. firms such as Pan American World Airways Corp., Holiday Inns, Inc., and Tower International, Inc., have already entered into hotel building arrangements with Romanian enterprises, but the Secretary noted that the potential demand for hotel accommodations in Romania is far from being fulfilled. Regarding tourist promotion in the United States, he recommended a visit by Romanian managers to the United States Travel Service in order to study U.S. promotional methods.

In response to the Secretary's suggestions on tourism, a Romanian delegation came to the United States in July and had discussions with American firms and with officials in the Commerce Department's U.S. Travel Service.

Western Tourists Visiting Romania

	U.S. Tourists	Other Western Tourists
1966	8,774	213,820
1967	11,630	262,564
1968	12,969	335,981
1969	16,847	350,771
1970	18,893	359,387

ON BLACK SEA—*Modern tourist resort reflects Romania's growing interest in attracting Western travelers.*

List of the plants and installations which Romania would be interested to build in a joint venture program:

I. Priority Items

1. Roller bearing plant to produce 30 million roller bearings/year.

2. Production lines of electronic component parts: Resistor with carbon film 0.25—0.5W, representative type: RC 1025, RC 1026, IPRS; RBX 012.-001, RBH 003, RMX 012, RMX 0125 —LCC (Capacity of production: 84 million units). Resistor with carbon film 1.0—2.0W, representative type: RC 1027, RC 1028—IPRS. (Capacity of production: 20 million units). Resistors with metallic film, representative type: RMNO 71-074—LCC—RPE 025 —100—LCC (Capacity of production: 2,600,000 units). Wire-wound resistors, 3—9W, representative type: TW & TP, GWS, GWPC preset variable-Plessey. (Capacity of production: 3 million units). Wire-wound resistors, 10—200W, representative type: 25W. (Capacity of production: 3,300,000 units). Non-linear resistors, representative type: B.832001P/10E. Thermistors (NTC), Philips (Capacity of production: 3,300,000 units).

3. Plant for laminated glass.

4. Isoprene-monomer producing plant (propylene as raw material).

5. Complete installation for manufacturing magnesium oxide (Capacity of production: 150,000 tons/year).

6. Complete installation for manufacture of metallic insertions for tires. (Capacity of production: 6,000 tons/year).

7. Installation for armored polyesters, including fiberglass with an output of: 10,000 tons armored polyesters/year; 5,000 tons fiberglass/year.

8. Processing unit for acrylonitrile (Capacity of production: 20,000 tons/year).

9. Plant for manufacture of "Christmas tree" valves.

10. Installation of system to manufacture magnetic memories.

11. Six slaughter-houses for poultry and swine.

12. Machinery, equipment, materials, know-how and technical assistance to irrigate an agriculture area of about 270,-000 hectares.

13. Processing unit for kinescopes manufacture (black and white TV's) (Capacity of production: 250,000 pieces/year).

14. Manufacture line for electronics components: Average-powered silicon transistors with an output of 2,500,000 pieces/year; high-powered silicon transistors with an output of 2,000,000 pieces/year; silicon diodes with an output of varicap diodes, 5,000,000 pieces/year, and commutation diodes, 5,000,000 pieces/year.

15. Equipment for weaving mill and cloth manufacture from glass fibers with an output of: 15,000,000 sq. yd. of woven material/year; 10,000,000 sq. yds. of ribbon (tape)/year; 3,000,000 meters of tube braid/year.

16. The construction in Romania of an offshore drilling platform.

17. Association with American companies for the exploration of some oil prospective areas and further for the exploitation of the oil bearing zones that might be discovered (Africa, South America, Mid-East).

18. Association with American companies to develop areas with already tested mining potential and also to explore for additional sites.

19. Alloy steel billet rolling mill (for rolling from alloy steel ingots) (Capacity of production: 700,000 tons of ingots/year).

II. Other Projects

1. Equipment for exploitation of diatomite.

2. Complete lines for the manufacture of: pistons, 1,000,000 pieces/year; piston rings, 7,000,000 pieces/year; inlet valves, 1,700,000 pieces/year.

3. Complete installations for the manufacture of: pick-up (record player), 200,000 units/year; tape recorders, 200,000 units/year.

4. Tin coating plant for cold rolled plates—coating capacity: 130,000 tons/year.

5. Zinc coating plant for cold rolled plates—coating capacity: 200,000 tons/year.

6. Plant to manufacture anisotrop magnets.

7. Complete installations for the manufacture of fluorescent lamps.

8. Plant to manufacture coal car continuous annealing furnace.

9. Plant to manufacture refractories (basic brick, magnesite).

10. Addition to and modernization of an existing silicon carbide plant.

11. Plant for manufacture of mercury lamps.

12. Terminal equipment for computers and magnetic tapes.

13. Complete lines to manufacture glass insulators, suspended type for high voltage lines rated at 110,220 and 400 KV (Capacity of production: 1 million units or more).

14. Equipment for aluminum rolling mill.

15. Modernization of Romania's tractor plant.

16. Folcysteine for animals and for plants.

17. Plant for the processing of soy beans.

18. Installation for manufacture of drawing (pulling) glass; duplex and triplex glass section (Capacity of production: 100,000 sq. m./year).

19. Installation for insulator manufacture from glass (Capacity of production: 7,000 t/year).

20. Plant for glass packing (Capacity of production: 80,000 tons/year).

21. Installation for manufacturing from glass.

22. Plant for glass fibers (Capacity of production: 4,000-6,000 tons/year).

23. Installation for shatterproof glass (Capacity of production: 360,000 sq. m./year).

24. Complete installation for the manufacture of polyester fibers (Capacity of production: 30,000 tons/year).

25. Processing unit for dimenthyl therephtalate (Capacity of production: 40,000 tons/year).

26. Complete installation to produce complex fertilizers such as phosphorous pentoxide (100,000 tons/year); potassium oxide (35,000 tons/year).

27. Production line for cromic anhydride having a capacity of 2,500 tons/year.

28. Factory for high revolution of fats as follows: 42,000 metric tons separated fats per year; 80,000 metric tons distillated fatty acids per year; 6,000 metric tonsoleine and stearise, a.s.o.

29. Polyisoprenic rubber producing plant (polimerization process) (Capacity of production: 30,000 tons/year).

30. Alchylation plant (Capacity of production: 100,000 tons/year).

31. Line for drying and packing the rubber in polyethylene.

32. Plant for manufacture of bituminized glass fiber.

33. Plant for manufacture of fiber glass.

34. Plant for expanding and forming polystyrene.

35. Oxygen and nitrogen plant.

36. Complete design, process technology and construction of plant to manufacture door and window frames made of steel.

37. Equipment for the manufacture of plaster (gypsum and phosphorous gypsum).

VISIT USA Exhibit To Begin Second Leg Of Worldwide Tour

Mobile Dome On The Road To Attract Foreign Visitors To American Shores

SPACE GEMS INSIDE—*Moonrocks, a space suit and a Gemini capsule are part of U. S. space exhibit in another air supported dome adjacent to VISIT USA structure at the 1971 America Fair in Tokyo.*

In Tokyo at the end of this month, a giant six-story high nylon dome will be deflated, removed from its portable steel platform and carefully folded into packing crates to begin the second leg of a five-year round-the-world tour, promoting the United States to foreign tourists. Its next destination—Mexico City.

Special power hookup

The dome, known as the VISIT USA Mobile Exhibit, is supported entirely by air, supplied by a specially designed and constructed generator which also operates the structure's air-conditioning system. A second identical Diesel electric generating unit provides the lighting and power requirements of the Exhibit. Both generators are a gift to the United States government by the Onan Corporation, Minneapolis, Minn., and their total capacity of 300,000 watts has made the Exhibit totally independent of any outside power hookups.

This independence has allowed the United States Travel Service to plan and begin a

POWER SOURCE IS GIFT—*Two Diesel electric generating units with a total capacity of 300,000 watts, are the prime source of power for VISIT USA mobile exhibit. Thomas G. Valenty, left, president of Onan Corp. which gave the units to the government, and C. Langhorn Washburn, Ass't Secretary of Commerce for Tourism, inspect one unit being loaded on a transport plane leaving for Japan.*

worldwide tour for the Exhibit. Power ratings vary between countries, and without this portable source of prime power to deliver constant loads up to 24 hours a day for several years, the power problems and technical adjustments would have been too difficult and too expensive to attempt this U.S. tourism promotion.

Backed by USTS, five other government agencies and 13 private-industry travel firms, the VISIT USA Mobile Exhibit is a joint effort of government and business to attract more foreign visitors to the United States.

Inside the dome, up to 400 persons at a time can view, and hear in their own language, Walt Disney's 360-degree Circle-Vision sight and sound production, "America the Beautiful." Filmed from land, sea and air, "America the Beautiful" portrays major U.S. tourist attractions, including cities, historic sites, natural wonders and the Kennedy Space Center. The 20-minute show was photographed with nine motion-picture cameras operating simultaneously, and is shown with nine projectors on a screen which completely encircles the audience.

Appearing in Tokyo with the globetrotting theater is a U.S. space exhibit. This exhibit includes among other space attractions a moonrock collected by Apollo 12 astronauts, a space suit, and an actual Gemini capsule, all on loan to the showing from the Smithsonian Institution's Air and Space Museum in Washington, D.C.

Space exhibit

In Tokyo, the space exhibit is housed in another air-supported dome, adjacent to the VISIT USA structure at Toshimaen. Both domes are the focal points of the 1971 America Fair, which opened at the Toshimaen Amusement Park on April 3 and closes on August 29.

In Mexico City, the VISIT USA Mobile Exhibit will be inflated at a spot adjacent to the new Technological Museum in Chapultapec Park. Commercial VISIT USA exhibits will be set up in a building near the dome by travel industry organizations, which will in-

clude displays from bus lines, airlines, rent-a-car firms and travel agencies The Mexico exposition, called "Expo Tourismo. USA," will officially open November 23 for a five-month engagement.

Japan, according to Fritz M. Schmitz, Far East Regional Director of USTS, was chosen as the first stop of the worldwide tour because of the importance it now holds in the number of its citizens visiting the United States. In 1971, 207,455 Japanese visited the U.S.—nearly 56 percent more than in 1969. And, in the first six months of 1971, Japan passed the United Kingdom to become the number one overseas supplier of tourists to this country.

"Much of this," said Schmitz, "can be attributed to the greater affluence now held by the Japanese people, because of the tremendous surge in their industrial economy.

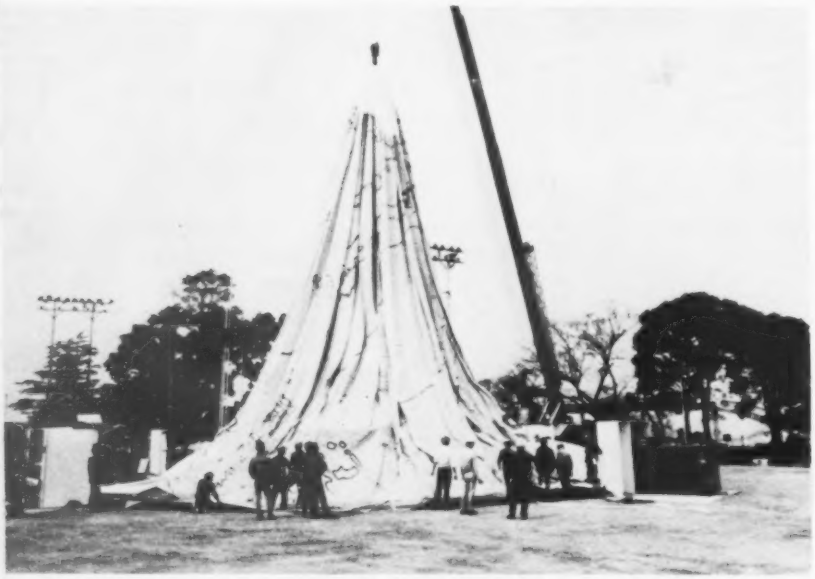
For the number two spot on the itinerary for the Mobile Exhibit, Mexico was selected, since in the overall picture of foreign countries supplying tourists to the U.S. this next-door neighbor ranks second (preceded by Canada and followed by Japan) and is considered a growing potential source of more and more U.S. tourists by the government and the travel industry.

"The number of U.S. visitors from Mexico," said William Tappé, USTS Regional Director for Mexico, Central America, Northern Latin America and the entire Carribean, "grew 5.1 percent in 1970 over the calendar year 1969 total, and an even larger increase is expected this year."

Mexican tourists to this country in 1970 numbered 1,086,000.

From Mexico City, the Exhibit will move on to Paris, the United Kingdom, West Germany, and Australia.

—United States Travel Service



AIR BUILDS EXHIBIT—*After being uncrated from packing cases the fully air-supported dome is shown being raised on a giant crane and sealed to a portable steel foundation before being inflated.*

READY FOR ACTION—*Fully inflated, the six-story high dome is ready to begin presentation of a circular 20-minute film of U.S. major travel attractions, for audiences of up to 400 persons.*

DOMESTIC BUSINESS REPORT

- AIBA to help minority business
- John L. Jenkins, Jr. new OMBE head
- Small businesses to grow in the '70s
- Urbanized areas' population ranks
- Census takers get 'good marks'

Industrial Bankers Joining Drive To Aid Minority Firms

"It is incumbent upon the business community of this country to seize the initiative and provide greater opportunity to minorities," Senator John G. Tower from Texas advised the attendees of a jointly sponsored Commerce Department-American Industrial Bankers Association workshop in Washington last month.

Untapped opportunities

As a result of the one-day meeting which dealt with the financial problems of minority entrepreneurs, AIBA has indicated a desire to further assist in building minority business, and is seriously considering including a minority enterprise seminar in its national convention, scheduled for November 10 in Bermuda. AIBA leadership feels that such a seminar is needed to familiarize more of its members with the almost untapped market opportunity available in minority firms and the new areas open to help minority businesses.

The workshop plan is one method being utilized by Commerce's Office of Minority Business Enterprise to acquaint the business community with the problems faced by minorities who go into business and to develop ways in which business and industry can help solve these problems. OMBE has held similar seminars with the Investment Bankers Association, the American Petroleum Institute, the Life Insurance Association and other trade and professional associations.

The AIBA seminar not only presented a picture of the minority business environment, but presented specific case histories of problems encountered by individual minority businessmen in developing sound financing, and in breaking through the lower-level lending offices to reach the policy-making level, where equal opportunity exists in making loans.

AIBA is the national trade organization representing industrial banking, installment loan and sales finance companies in the United States, Canada and overseas. Over 70 percent of all companies in this field are members of the association, and their combined outstanding loans exceed $10 billion dollars.

Case studies

Actual case studies of finance problems realized in minority businesses were presented by minority entrepreneurs from the area. A representative of the Anacostia Economic Development Corporation enlightened the group on the inner-city view of finance companies, interest rates, and risk, and other problems to be faced when developing further businesses in the inner cities. This part of the agenda, representatives of AIBA have said, has made the industry realize the need for education in the community on return

CASE STUDIES—*Panel member A. E. McLean, President of A. E. McLean, Inc. tells his story, as others wait their turn.*

REACTING—*Carl Felsenfeld, one of C.I.T.'s general counsels, questions the minority businessmen at the seminar.*

ON HAND—*From left are Sen. John Tower and Commerce officials, Walter Sorg, Jay Leanse, John H. Altorfer.*

on investment, lending costs, acceptable loan levels and actual interest rates charged. One spokeman said, "A better line of communication must be established."

Challenge to industry

Senator Tower, as the keynote speaker, presented a strong challenge to industry to help minorities. The Senator said that he was not talking about jobs in organizations, "but rather about helping in the formation of entrepreneurial enterprises, including anything from small service businesses to medium and large scale production, financial, and marketing firms.

"There is talent," he stressed, "to build and run businesses in the minority communities, but the capital, the opportunity and the management training can really only come from America's business community. Government can help. But Government cannot be a substitute, particularly for the know-how and opportunities that our business community can provide."

Senator Tower also stressed the fact that the tremendous economic development of the U.S. has been based on the motivation which its economic system provides to the individual. "But now," he said, "as we are approaching the 200th Anniversary of the independence of America, a time when many of the younger generation are questioning the true value of our system and its principles, it is an appropriate time to question ourselves as to whether the central principle of the Great Experiment, personal economic freedom, has been adequately promulgated to all elements of our society over these two centuries."

"Obviously," he continued, "no newly-established nation can completely break the connection with its immediate past history. There was no way for America to turn immediately into a completely open business-society, replete with sophisticated capital markets and communications systems, abounding with business opportunities, and based on a foundation of widespread public education.

Senator Tower feels that even though in this country massive capital and wide-spread opportunities are available, there are substantial elements of the U.S. society—Mexican-Americans, Blacks, Indians and others—which have had little access to these entrepreneurial ingredients.

"I think," he pointed out, "that any identity group which feels that it does not have adequate economic opportunity will ultimately not support the form of Government under which it lives."

The Senator, who is a member of the Committee on Banking, Housing and Urban Affairs, also said that creating more business opportunities for minorities does not mean that others in the society have to give up opportunities to make up the difference.

"We have in America at any given time," he said, "substantial amounts of unused and incompletely used capital, existing in banks, in corporations, and in Government, which can be more efficiently supplied to the market demand for capital, with increased effort by business and government.

"In addition, there are tremendous business opportunities in and among minority communities themselves, which represent some of the untapped demand which our country needs to encourage nationwide full-employment. We have a continual problem of lack of adequate aggregate demand in our economy, and if we can build up the ability of minorities to produce and consume, all of the country will benefit through higher employment, a larger tax base and lowered welfare costs."

A warning

The Senator warned, "If our system is to continue to survive and prosper in the manner in which we know and respect it—and to which we all owe so much, then that system must be made to work for *all* Americans."

Minority businessmen represented on the program included John Whitted, President, Custom Craft, Inc., Pittsburgh, Pa.; Bennie Thayer, President, Thayer-Bell Interiors, Oxon Hill, Md.; A. E. McLean, A. E. McLean, Inc., Washington, D.C.; Thomas Roberts, Wood Oldsmobile, Washington, D.C.; and Harry McClenney, OMBE Consultant and Executive Director for TAMFAD, a minority trade association. Representing Anacosta was its Deputy Director, Albert Hopkins.

More than 70 representatives of the country's leading factoring, leasing and finance companies attended the workshop. Coordinating the seminar for OMBE was James H. Marx, the office's Director of Financial Resources. —*OMBE*

John L. Jenkins, Jr. New OMBE Head

John L. Jenkins Jr., highest ranking black official in the Department of Commerce, has been elevated to the position of Director of the Office of Minority Business Enterprise.

Jenkins, 43, an assistant director in OBME since May 1970, has been in charge of the Community Services Division. He succeeds Abraham Venable as director.

J. L. Jenkins

Secretary Stans, in announcing the appointment, noted Jenkins' "extensive background in the area of corporate business management and operation," and expressed confidence that "he will make a significant contribution.

The new director of the Nixon Administration's coordinating agency in developing minority enterprise set a future course of "forging unity from which we will get positive attitudes, positive results and equal opportunity for all Americans."

The goal

"As we move forward (in the task of developing minority enterprise) we will not always be understood, but understanding and acceptance of our program will always be our goal," Jenkins concluded.

Prior to joining Commerce Jenkins, a native of Chattanooga, Tenn., was president of Bill Cosby Foods, Inc. His other management experience includes executive vice president of Rob Cage International, a food franchise company in Denver, Colo. and vice president of Mahalia Jackson's Chicken Systems Inc., of Memphis, Tenn.

Jenkins received a B.S. degree from Tennessee State College and a law degree from Howard University in 1958. *—OMBE*

Time Period Cut For Filling Defense Orders

The time period for placement of defense rated orders and authorized controlled materials orders has been reduced by new rules changes announced by Deputy Ass't Secretary of Commerce Hudson B. Drake.

Reason for change

Drake, director of the Bureau of Domestic Commerce, said the changes are designed to restrict the accumulation of inventory replacement requirements of materials used to fill defense contracts.

These actions are being taken, Drake continued, to lessen the possibly severe market impact of replacement orders, accumulated over a period of six months, on materials which may be in limited supply when the backlog of priority orders are placed.

The new rules still allow sufficient time for defense contractors to place rated orders, or authorized controlled materials orders, to replace materials used from their inventories to fill defense contracts.

Seven changes

The changes are seven amendments to provisions of Defense Materials Systems and Defense Priorities System regulations and orders. The amendments reduce the time for the placement of rated orders or authorized controlled materials for inventory replacement to the month in which the materials were taken from inventory to fill defense orders, or the immediately succeeding two months.

The amendments were published in the *Federal Register* July 7. Copies are available from the Mobilization Plans Division, Bureau of Domestic Commerce, Department of Commerce, Washington, D.C. 20230. *—BDC*

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Small Firms Will Increase Share Of Business Output

Small business will increase its growing share of the total output of business during the remainder of the decade of the 70s, according to the 1971 annual issue of the *SBA Economic Review*, recently released by the Small Business Administration's Office of Planning, Research and Analysis.

In fact, Wilfred J. Garvin, Assistant Administrator for that SBA office agrees that "at the same time, business generally will continue to grow at a healthy rate."

Garvin's office has concluded that the small business share of the gross business product "has about drawn even with the share of the big business competitors," and that the upward trend in the small business share will continue through the remainder of the decade.

"Improvement in the relative position of small business," the review states, "is also reflected in the SBA forecast of the business population. The total number of firms is expected to increase at a two percent annual rate from 5.56 million in 1971 to 6.23 million in 1977. The number of firms in contract construction is expected to grow annually 3.5 percent.

"Service industry firms are projected at a 2.1 percent growth rate. Growth rates for wholesale and retail trade are 1.9 and 1.1 percent respectively. All of these are industries with large small business components. The growth rate for manufacturing—the most highly concentrated industry—is only 0.6 percent. The number of firms in all other industries is projected to increase at a 3.6 percent annual rate. This group also includes a high proportion of small firms, for example, firms in transportation and real estate."

The SBA said that, for the purpose of its forecast, it had accepted a projection by the Bureau of Labor Statistics of the Labor Department that foresees a growth in the gross national product of 4.3 percent in constant dollars compounded annually between 1968 and 1980.

"This is among the more conservative projections," the agency added. "Some forecasts anticipate an average annual rate of growth of as high as 5½ percent.

"The continued sustained growth in national output will expand the range of options available to the framers of national policy. Even more important will be the different rates of growth among the several major sectors of industry.

"Growth will be led by the service industries, up 88 percent in 1980 over 1968. This expansion will be trailed closely by residential construction—up 75½ percent; business fixed investment—up 71½ percent; and the manufacture and distribution of consumer durables —up 65 percent. Government purchases of goods and services will rise by 45 percent over the 12-year period. Federal purchases will grow by only eight percent, but State and local outlays will rise by 81 percent.

Federal purchase increase

"A large portion of the latter increases will be brought about by transfers of spending from Federal to State and local governments through revenue sharing and expanded Federal grants."

So far as the short-run outlook is concerned, the SBA said that the residential construction industry "appears to be sparking the upturn in the economy," and that the outlook is that new housing starts in 1971 may exceed by 300,000 units the 1,750,000 previously forecast by Commerce.

"This will be followed," the agency said, "with a slight lag, by a rise in sales of lumber, building materials, and home furnishings and appliances—both for manufacturers and for firms in wholesale and retail trade. As the ripples spread, sales of a wide variety of service and trade outlets can be expected to expand. Perhaps the last among industries with large small business components to be reached by the forces of economic recovery will be the tool and die industry.

Interest rate reverse

"As the years wears on, the decline in short-term interest rates will be slowed and probably reversed. Long-term rates should weaken temporarily, but begin to rise as the year ends."

Commenting that the population is expected to grow from 207 million in 1971 to 228 million in 1980, the SBA said there also would be a significant change in the composition of the population by age brackets, characteristics and geographic distribution. The agency said that the number of people in the 20 to 44 age group is expected to increase from 67 million, or 32.3 percent of the total population, in 1971 to 84 million, or 36.8 percent of the population in 1980.

"Consumers will be increasingly affluent," the SBA predicted, recalling that the National Planning Association had forecast a rise in per capita disposable income of from $2,930 in 1968 to $4,144 in 1980 in constant 1968 dollars.

"The more affluent and better educated buyer," the agency said, "can be expected to be more selective in choices of goods and services offered by the business community. With respect to commodities, this buyer is apt to favor the custom-made over the mass produced—a clear bias toward the small producer. As between commodities and services, the buyer of the 70s will devote an increasing proportion of purchases to services, products of the small business sector, and a diminishing proportion

FROM SHOESTRING TO SUCCESS—*Eddie Jackson Jr. inspects some new equipment for E. J. Jackson Janitorial Services and reminisces about beginning his business "on a shoestring." He is among minority businessmen throughout the country being assisted through the cooperating arrangement of the Small Business Administration and the Commerce Department Office of Minority Business Enterprise.*

to the products of the highly concentrated manufacturing industry."

The SBA observed that populations in central cities of the largest metropolitan areas are beginning to stabilize and in some cases to decline, that while urban growth will continue it will be confined mainly to suburbs and medium-sized metropolitan areas, and that small urban and rural places have begun to draw even with metropolitan areas in personal income and other growth indicators.

Interest rates for medium and long-term loans, the agency said, will remain high by historic standards through the decade, but barring a new round of inflationary pressures should not return to the 1969 levels.

While pointing to the generally favorable prospects for small business, the SBA said the outlook is clouded by some other developments, notably protection of consumer interests and measures to reduce pollution of the environment.

Careful plans needed

"In the absence of careful planning to assist them in making the transition to a new order of public responsibility," the agency commented, "many small firms could well become casualties of these necessary and desirable changes in the business environment.

Considering anti-pollution measures, the SBA pointed to indications that the cost of compliance as a percentage of fixed investment is inversely related to business size.

"Thus," the agency said, "should compliance be forced by fiat with the expectation that the added costs would be recouped in the sales price, small firms would find themselves at a competitive disadvantage."

—*Small Business Administration*

New Maritime Council To Promote U.S. Ships

Industry, labor and government will join efforts in a new organization—the National Maritime Council—to promote more cargoes for U.S. flag merchant ships.

Creation of the joint council, which includes leading representatives of shipping lines and shipyards, seagoing and shoreline maritime labor, and the Maritime Administration, was announced by Assistant Secretary of Commerce for Maritime Affairs A. E. Gibson.

Prime purposes

The organization will undertake national and regional programs to persuade shippers to increase their patronage of U.S. ships. The council also will initiate measures to increase public awareness of the American Merchant Marine.

"The formation of the Council will bring the concerted efforts of all groups whose welfare depends on the health of our merchant fleet to bear on its central problems," Gibson stated.

Members of the organization committee are Robert Benedict, president, American Mail Line Ltd.; Jesse Calhoun, president, National Marine Engineers Beneficial Association (AFL-CIO); Capt. J. W. Clark, president, Delta Steamship Lines, Inc.; Joseph Curran, president, National Maritime Union of America (AFL-CIO); Thomas W. Gleason, president, International Longshoremen's Association (AFL-CIO); Page Groton, director, International Marine Council of the International Brotherhood of Boilermakers, Iron Shipbuilders, Blacksmiths, Forgers, and Helpers (AFL-CIO); Paul Hall, president, Seafarers International Union of North America (AFL-CIO); Edwin M. Hood, president, Shipbuilders Council of America; Paul Richardson, president, Sea-Land Service, Inc.; and Thomas J. Smith, president, Farrell Lines, Inc. —*Maritime Administration*

County Data To Aid The Business Planners

Detailed business and industry data for each county in the United States are found in the series, "County Business Patterns," issued annually by the Census Bureau.

The series includes separate reports for each state, the District of Columbia, Puerto Rico, the Virgin Islands, American Samoa and Guam, and will soon conclude with a U.S. Summary.

Business uses

The reports are useful to business for analyzing market potential, measuring the effectiveness of sales and advertising programs, setting sales quotas and budgets, and analyzing the industrial structure of regions. Governmental units also utilize the series in administering and planning.

Each report provides state and county-by-county first quarter economic information on major industry groups as they are categorized in the Standard Industrial Classification listing. It gives the number of mid-March employees, taxable payrolls and the number and size of reporting units for private, non-farm business firms reported under F.I.C.A.

Records of the Social Security Administration are the primary source material for the series, supplemented by a special survey of multiunit companies.

Single state reports cost from 40 cents to $2, and the U.S. Summary, when ready, will be $2.25. All are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or Commerce field offices in major cities.

In addition, published information by county and by industry will be available at cost on punchcards and computer tapes. Inquiries should be addressed to Chief, General Economic Statistics Division, Bureau of the Census, Washington, D.C. 20233. —*Census Bureau*

Rank Of Urbanized Areas According To Population: 1970

The following is a list by rank of the 50 most populous urbanized *areas of the United States, based on results of the 1970 Decennial Census (an urbanized area consists of a city of 50,000 persons or more, plus the densely built-up adjoining area whether incorporated or not):*

Rank	*Urbanized Area*	*Population*
1	New York, N.Y.-Northeastern N.J.	16,206,841
2	Los Angeles-Long Beach, Calif.	8,351,266
3	Chicago, Ill.-Northwestern Ind.	6,714,578
4	Philadelphia, Pa.-N.J.	4,021,066
5	Detroit, Mich.	3,970,584
6	San Francisco-Oakland, Calif.	2,987,850
7	Boston, Mass.	2,652,575
8	Washington, D.C.-Md.-Va.	2,481,489
9	Cleveland, Ohio	1,959,880
10	St. Louis, Mo.-Ill.	1,882,944
11	Pittsburgh, Pa.	1,846,042
12	Minneapolis-St. Paul, Minn.	1,704,423
13	Houston, Texas	1,677,863
14	Baltimore, Md.	1,579,781
15	Dallas, Texas	1,338,684
16	Milwaukee, Wis.	1,252,457
17	Seattle-Everett, Wash.	1,238,107
18	Miami, Fla.	1,219,661
19	San Diego, Calif.	1,198,323
20	Atlanta, Ga.	1,172,778
21	Cincinnati, Ohio-Ky.	1,110,514
22	Kansas City, Mo.-Kans.	1,101,787
23	Buffalo, N.Y.	1,086,594
24	Denver, Colo.	1,047,311
25	San Jose, Calif.	1,025,273
26	New Orleans, La.	961,728
27	Phoenix, Ariz.	863,357
28	Portland, Ore.-Wash.	824,926
29	Indianapolis, Ind.	820,259
30	Providence-Pawtucket-Warwick, R.I.-Mass.	795,311
31	Columbus, Ohio	790,019
32	San Antonio, Texas	772,513
33	Louisville, Ky.-Ind.	739,396
34	Dayton, Ohio	685,942
35	Fort Worth, Texas	676,944
36	Norfolk-Portsmouth, Va.	668,259
37	Memphis, Tenn.-Miss.	663,976
38	Sacramento, Calif.	633,732
39	Fort Lauderdale-Hollywood, Fla.	613,797
40	Rochester, N.Y.	601,361
41	San Bernardino-Riverside, Calif.	583,597
42	Oklahoma City, Okla.	579,788
43	Birmingham, Ala.	558,099
44	Akron, Ohio	542,775
45	Jacksonville, Fla.	529,585
46	Springfield-Chicopee-Holyoke, Mass.-Conn.	514,308
47	St. Petersburg, Fla.	495,159
48	Omaha, Nebr.-Iowa	491,776
49	Toledo, Ohio-Mich.	487,789
50	Albany-Schenectady-Troy, N.Y.	486,525

CENSUS REVIEWER REPORTS—*Ira T. Ellis, center, retired economist for duPont, Wilmington, Del., presents report of the Census Review Committee to Secretary Stans. At left is Dr. Harold C. Passer, Ass't Secretary for Economic Affairs. Ellis headed the review committee which examined issues raised on the census.*

Census Takers Get 'High Marks'

"Planning and execution of the decennial census is carried on at a commendably high level of technical competence and with proper concern for comprehensiveness, accuracy and economy," a review committee told the Secretary of Commerce.

In its report to Secretary Stans the Decennial Census Review Committee stated that the census statute has worked well in ensuring the confidentiality of individual responses.

Widely publicized misgivings about invasion of privacy "apparently were aroused by developments that had little or no connection with the 1970 census or the Census Bureau," according to the report.

"The misgivings can be attributed in a major part to reports of data collection and storage, and interchange activities of other groups—public and private," the committee reported. The report recommended establishing a "committee on privacy and confidentiality" to assist the Director of the Census in protecting the right of citizens against disclosure of census data on individuals.

The committee, appointed by Stans in late 1969 to examine issues raised about the decennial census, is headed by Ira T. Ellis, Wilmington, Del., retired duPont executive. Among its 16 members are Sen. Hiram Fong of Hawaii, U.S. Rep. Charles H. Wilson of California and Alexander B. Trowbridge of New York City, former Secretary of Commerce, now chairman of the Conference Board.

Other conclusions

Other conclusions in the report include:

- The precise population of the United States cannot ever be determined with absolute certainty but evidence from demographic analysis and recanvassing indicates that the census enumeration comes close to finding the true number.
- A supplementary census should be taken in years ending in "5" because of "the rapidity of economic and social change in the United States." It should be a complete count and not based merely on sample surveys and the questionnaire should be as brief as possible.
- Action should be taken to insure that questionnaires from old censuses will not be released through the National Archives. Under a 1952 agreement, the records of the 1900 census could be released next year to geneologists, historians and other scholars.
- The census should continue to be mandatory because a voluntary census would be ineffective. "Effective penalties for non-response should be retained."

—Office of the Secretary

Ombudsman For Business

Businessmen who need assistance in their dealings with the Federal Government now have a central office in Washington, D.C., to write or call for information, suggestions, or even for registering complaints—the Commerce Department Ombudsman for Business.

All inquiries should be addressed to the Ombudsman, Thomas E. Drumm, Jr., Special Assistant to the Secretary. U.S. Department of Commerce, Washington, D.C. 20230, or call 202-967-3178.

Business Calendar

Aug. 12-13—Washington, D.C.—Rural Housing Alliance, National Rural Housing Workshop. Prepaid workshop reservations required. For information contact Rural Housing Alliance. Phone: 202-659-1680.

Aug. 25-26—Seattle, Wash.—Practising Law Institute Seminar on Small Business. Contact Practicing Law Institute. Phone: 212-765-5700.

Aug. 30-31—Ft. Collins, Colo.—Symposium: Water, Man and Nature, at Student Center, Colorado State University, co-sponsored by the Bureau of Recreation and the American Institute of Biological Science. For information call 202-244-5881.

SCIENCE & TECHNOLOGY REPORT

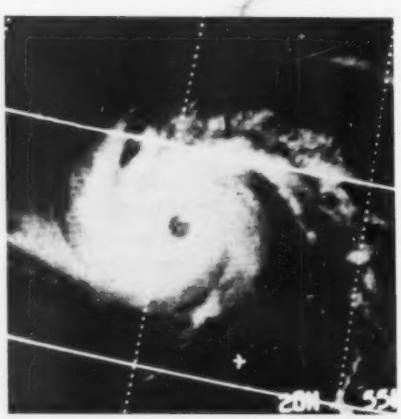
- 'Stormfury' aims to modify hurricanes
- Sleepwear manufacturers to improve product safety
- Lockheed to develop buoy system
- Study to probe court recording
- Patents of special interest

'Stormfury' Aims To Modify Hurricane Winds By Seeding

Tropical storms and hurricanes will be seeded with silver iodide this year in an attempt to reduce their destructive winds. The project is known as Stormfury, an aptly named program carried out as in past years by Commerce's National Oceanographic and Atmospheric Administration and the Department of Defense.

Seeding experiments will be conducted on storms in the southwestern Atlantic, the Caribbean, and the Gulf of Mexico, when the probability is small—10 percent or less—that the hurricane center will come within 50 miles of a populated area within 18 hours after seeding. This will allow ample time to measure seeding effects before they are obscured by proximity to land. Last year there were no hurricanes that met these criteria.

Aircraft and flight crews are being provided by NOAA's Research Flight Facility at Miami, the Naval Air Stations at Jacksonville, Fla., and Oceana, Va., and three Air Force Weather Reconnaissance Squadrons based in Puerto Rico, New Mexico, and California.



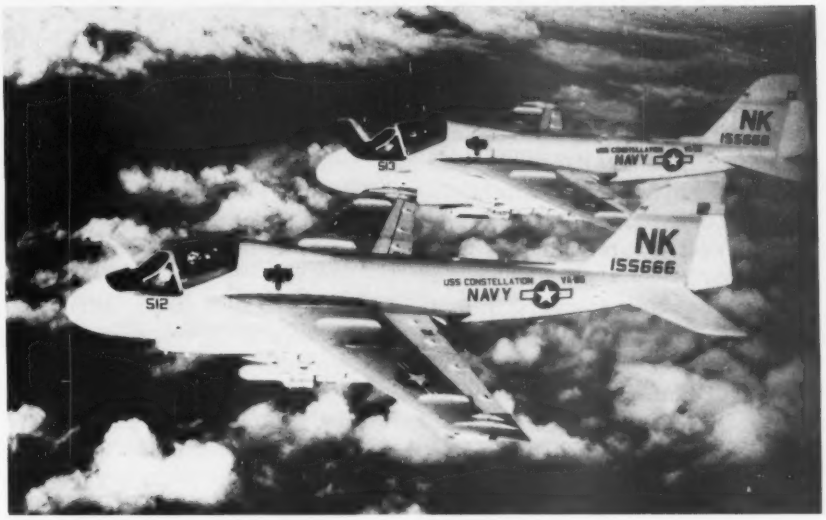
HURRICANE'S EYE—*'Project Stormfury' scientists will zero in on hurricane centers this year when possible to attempt to modify the big storms' destructive winds by seeding with silver iodide.*

The project's major goal this year is to confirm the promising results of the experiments conducted in 1969. On each of two days, August 18 and 20, 1969, Hurricane Debbie was seeded five times during an eight-hour period. After seeding on August 18, the hurricane's maximum winds at 12,000 feet decreased 31 percent, dropping from 98 knots before the experiment to 68 knots after seeding. Seeding on August 20 was followed by a decrease of 15 percent, from 99 knots to 84 knots.

This year, the principal Stormfury seeding experiment will be testing a new hypothesis for the seeding.

In the successful 1969 experiments on Hurricane Debbie, silver iodide generators were dropped along a line beginning at the radius

of maximum winds, or near the middle of the eyewall, and continuing away from the center for 15 to 25 miles. The hypothesis then, and for the earlier seedings of Esther in 1961 and Beulah in 1963, was that seeding caused sudden freezing of supercooled water existing at minus 5 to 20 degrees Centigrade in the massive cloud wall around the hurricane center; the freezing released enough latent heat of fusion to raise cloud temperatures; and the heating reduced the great difference in pressure across the eyewall thus diminishing the maximum winds.



NAVY SEEDERS—*Among aircraft assigned to 'Project Stormfury' this year are these A-6 Intruders from the Naval Air Station at Oceana, Va., which will be used to seed hurricanes and tropical storms.*

Cloud concentration

Recent computer simulations of the hurricane experiment—using mathematical models developed by NOAA's National Hurricane Research Laboratory and the analyzed data collected in Hurricane Debbie—have indicated that best results should be realized by seeding essentially the same annular band as in Debbie, but by concentrating on the clouds beyond the ring of maximum winds which can be made to grow taller and larger by seeding.

The computer experiments and the data collected in Debbie and in unmodified storms of recent years have led to a revised Stormfury hypothesis as to how hurricane seeding reduces a storm's intensity. In the new theory, freezing of supercooled water is only the beginning, the trigger that sets off a chain reaction. The heat thus released causes explosive cloud growth and, as the clouds grow, condensation of water vapor releases many times more heat than the freezing alone.

Inducing cloud growth outside the storm's original eyewall creates a new wall cloud surrounding the original one at a larger radius, which draws off inflowing air before it can reach the original eyewall. The energy formerly concentrated in a tight ring around the center is thus dispersed over a greater area, causing a decrease in maximum winds.

Repeated seeding

In accordance with the computer simulations and the new theory, seeding runs this year will begin about two miles further out from the inner edge of the storm's eyewall than in previous experiments. Seeding will be repeated five times, at two-hour intervals, with 208 silver iodide generators being dropped on each run.

Other experiments planned for 1971 include seeding of hurricane rainsectors and rainbands, and the continuation of experiments on lines of tropical cumulus clouds not associated with hurricanes. In

WHERE TO SEED?—*'Stormfury' Director R. Cecil Gentry (right), Director of the National Hurricane Research Laboratory at Miami, confers with Capt. L. J. Underwood, Assistant Project Director and Commanding Officer of the Navy's Fleet Weather Facility at Jacksonville, Fla.*

1969 and 1970, the Project seeded lines of clouds over the ocean south of Puerto Rico. Since these cumulus cloud lines resemble hurricane rainbands in many ways, the results of such tests can contribute to research in hurricane modification.

Stormfury scientists estimate that if Federal hurricane modification research continues at the present level for a decade and if, in that time, one severe hurricane such as Camille in 1969 can be weakened so that its damage is reduced by as little as 10 percent, the investment will have been returned tenfold.

—NOAA

U.S. Prohibits Foreign Ships From Taking Certain Sea Life

Ten more species of marine animals have been placed on the prohibited list for foreign fishing vessels along the Continental Shelf by the National Marine Fisheries Service of Commerce's National Oceanic and Atmospheric Administration.

Creatures of the Continental Shelf are defined in the 1958 Geneva Convention on the Continental Shelf, to which the U.S. is a party, as those which at the harvestable stage "are immobile or are unable to move except in constant physical contact with the seabed or subsoil of the Continental Shelf."

This Convention is implemented by a 1964 U.S. law commonly known as the "Bartlett Act" under which the U.S. has the right to reserve to its own nationals the right to harvest certain marine resources determined to be creatures of its Continental Shelf, except as otherwise provided by international agreement.

The new list includes precious red corals and black coral; surf clams and ocean quahog; and the following crustacea: Dungeness crab, deep sea red crab, northern stone crab, golden king crab, and two species of California king crab.

—NOAA

Children's Sleepwear Manufacturers Must Make Product Flame Resistant

Manufacturers of children's sleepwear have a year to make their products flame-retardant. Products which do not comply with the new children's sleepwear standard by that time must label their sleepwear indicating that it does not meet the new standard issued recently by Commerce Secretary Stans. This temporary labeling alternative cannot be used after July 30, 1973.

Although a treatment process exists to treat some garments to make them conform with the stringent requirements of the standard, neither the machinery nor the procedures presently exist for treatment of about 80 percent of the sleepwear now on the market.

Goods which do not meet the standard a year from now must be labelled: "Flammable (does not meet U.S. Department of Commerce Standard DOC FF-3-71.) Should not be worn near sources of fire."

Goods manufactured after July 30, 1973, which do not comply with the standard will be ruled off the market.

In announcing the new standard, the Secretary said he believed the industry would be able to comply within the two-year period. An earlier mandatory compliance date would not achieve the goal of protecting children but would only create shortages of goods, he said.

The National Bureau of Standards developed the children's sleepwear flammability standard under the authority of the amended Flammable Fabrics Act. On November 16, 1970, the Secretary determined that a strict standard was needed to protect young children against the risk of death or injury from sleepwear fires. Sixteen witnesses were heard at a public hearing held by the Commerce Department last January on the proposed standard. Consumers, industry and other interested parties had an additional period in which to comment on the standard. During the past six months the NBS has analyzed and reviewed the comments received from the public and the National Advisory Committee for the Flammable Fabrics Act, and has intensified its research on various aspects of flammability and treatment of sleepwear fabrics.

The new standard requires that fabrics and garments must not ignite and burn when tested in a vertical position by brief exposure to flame. Provision is also made for fabrics which melt and drip on contact with flame. The standard provides for the testing of fabrics, as well as testing of those parts of garments that become more flammable by adding seams or trim. It also provides, as an alternative to testing the garment itself, that the basic fabric may be tested under circumstances simulating a garment, using the same seams or trim that will be used in the finished garment.

Secretary Stans stressed that the details of this standard respond to the particularly stringent need for the protection of children and should not necessarily be considered as a precedent for other items of wearing apparel.

Test program needed

He added that to give the fullest range of protection to small children, a well-designed pre-market testing program may be needed to accomplish the primary objectives of the standard—detecting noncomplying garments and fabrics before they are placed on the market.

The flammability standard required extensive research by the Bureau of Standards (see *Com-*

merce Today, Feb. 8, 1971, Page 13). New laboratory facilities were made available, the staff of experts was increased, and programs were conducted into combustion, mechanism of flame retardants, heat transfer, and flammability of products, fabrics, and materials.

—*National Bureau of Standards*

Lockheed To Develop, Test Data Buoy System

Lockheed Missiles and Space Company, Sunnyvale, Calif., will develop and test an ocean platform design for the National Data Buoy Project Office of Commerce's National Oceanic and Atmospheric Administration under a $1.4 million contract.

The buoy is a 28-foot, boat-shaped hull with a large stabilizing keel. It can be transported by truck or barge, and readily towed to its station at sea. An antenna is integrated into its mast structure, and the mooring line is attached to the hull directly below the mast foundation so as to ensure that the buoy streams with the current. Sensors on the buoy platform are expected to be limited to those required to check the performance of the hull and mooring, and their effects on environmental measurements.

This buoy system, as well as several larger, fully instrumented buoy platforms will be deployed for test and evaluation in the Gulf of Mexico during the spring of 1972.

The National Data Buoy Project Office is to develop the capability for deploying an operational network of automatic marine data-collection platforms that would provide meteorological and oceanographic measurements in the deep oceans, coastal waters, bays, estuaries, and the Great Lakes. Such a network would provide data useful for improved monitoring and prediction of the marine environment. —*NOAA*

Study To Probe Computer-Aided Courtroom Recording Techniques

Reduced congestion and delay in the criminal courts system of this country is hoped to result from an investigation of courtroom transcribing techniques undertaken by Commerce's National Bureau of Standards.

Conducted by staff members of the NBS Technical Analysis Division, the study will evaluate the computer-aided transcription of stenotype notes. Included will be an exploration of the state-of-the-art of legal reporting in general.

The approach to this study centers around two limited objectives: (1) the identification and analysis of representative examples of criminal courtroom reporting and (2) the design and execution of an experiment through which the characteristics of each reporting system could be examined. The experimental design calls for the investigation to be conducted in two phases:

- A three-week controlled environment test conducted at the NBS Gaithersburg, Md., facilities, and,
- A two-week field test conducted in an actual courtroom.

Courtroom tests will be conducted in Philadelphia through the cooperation of President Judge D. Donald Jamieson and Court Administrator Edward J. Blake of the Court of Common Pleas of that city. The office of the Chief Justice of the Supreme Court of Michigan; the Administrative Office of the Illinois Courts; and the Executive Office of the Superior Court of the District of Columbia are also providing assistance to the study.

The level of effort is not intended to be a statistically rigorous description of current American courtroom recording practices. Rather, the effort is aimed toward an exploration of the characteristics of representative examples of reporting techniques, with particular interest in the newly developing computer-related technology in the field. The National Bureau of Standards long-standing objective approach to system and methods evaluation is an important dimension of the study.

—*National Bureau of Standards*

Boston Harbor Water Studies To Provide Pollution Data

Data needed by pollution control authorities to maintain and preserve the quality of the marine environment is expected to be provided by a survey currently underway of the dynamics of water circulation in Boston Harbor and Massachusetts Bay. It is being conducted by Commerce's National Oceanic and Atmospheric Administration.

Part of a larger NOAA program of similar studies in coastal and estuarine waters, the survey is being made of current speeds and direction which should also be helpful to the safety of navigation of those waters.

The two-year investigation is being carried out from the NOAA Ship *Ferrel*.

The *Ferrel's* primary means of observing currents is the Tidal Current Survey System which is being used extensively in the program. The system uses current meters suspended from buoys at preselected stations throughout the Boston Harbor area. Observations of the speed and direction of the current at various depths at each station are recorded for reduction and study by the National Ocean Survey at Rockville, Md.

In addition, a photographic recording current meter is being used to record the speed and direction of the current on 16mm film. Other instruments include sensors for observing water temperature, salinity, and depth. —*NOAA*

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

Monorail system. The invention consists of a monorail car suspended from pneumatic tired wheels riding on the rail. The rail comprises a number of tubes which are spaced apart by web members which are spaced at intervals along the rail. A pair of upper tubes are spaced horizontally and have downwardly and inwardly sloped top surfaces on which the sides of the tire treads rest. Low-friction pads on either side of a lower tube are attached to the car and can slide along the side of the lower tube to prevent side sway. A heated or cooled liquid or gas may be pumped through each of the tubes so expansion joints are unnecessary. Patent No. 3,593,666 issued to Phillip D. Savage, Malone, N.Y., and assigned to Hall Ski-Lift Company, Inc., Watertown, N.Y.

Decoding circuit for telephone transaction system. An instant transaction system designed to transfer money from one bank account to another by telephone. The system is used for buying materials or services by transferring funds in a bank from the buyer's deposit account to the seller's account. The transfer of funds is accomplished by means of a touch-tone telephone receiving set equipped with a printing means. A computer at the bank receives digital orders from the receiving set, decodes the orders and records the transfer at that location. Each purchaser is provided with a secret number on a telephone operating card and the entire operation is performed in the presence of the purchaser and a representative of the seller or store. Patent No. 3,594,503 issued to Arnold M. Wolf, Brooklyn, N.Y., and John G. Richter, Yonkers, N.Y., and assigned to Electrospace Corporation, Glen Cove, N.Y.

Alarm device. An alarm device which is actuated by intrusion into the home or protected area to cause an intermittent signal to be produced indicating the intrusion. An electronic circuit is employed to selectively cause the activation of the alarm device. Patent No. 3,594,723 issued to George Puig, 141 Salven St., Rio Piedras Heights, Rio Piedras, Puerto Rico.

Apparatus for drilling underwater. A system for drilling into the floor of a body of water through the employment of a drilling station located on the floor and having a torque imparting mechanism submerged to transmit drilling torque to a drill string extending through the station. In deep water environments, the drill string of the system is suspended from a buoyant support station submerged within the body of water above the drilling station. An untorqued drilling fluid conduit extends upwardly from communication with the drill string to a control station at the top of the surface of the body of water. The support station can be lowered to provide for lowering of the drill string as drilling takes place. The control station is buoyant and the conduit is suspended from the control station. Patent No. 3,593,808 issued to Arthur J. Nelson, 1998 Broadway, San Francisco.

Cardiac assisting pump. An intra-arterial cardiac assisting device which has a nonelastic polyurethane balloon which is inflated periodically for diastolic augmentation by utilization of helium. The leading end of the device has a pressure transducer which is passed into the aorta as a catheter. Patent No. 3,585,983 issued to Adrian Kantrowitz, Wladimir Schilt, and Paul S. Freed, Maimonides Medical Center, 4802 Tenth Street, Brooklyn, N.Y.

Portable self-erecting silo. A portable, self-erecting silo assembly utilized for temporarily storing asphaltic mix. The device consists of an elongated wheeled framework suitable for towing behind a motorized vehicle, a support frame carried at one of the ends of the framework and defining a space adjacent to the ground surface for the passage of dump trucks. A sectional telescoping container including a cylindrical outer element and a conical inner element is telescopically received in the support frame and movable from the space defined in the support frame in an upward direction to an expanded configuration generally above the space defined by the support frame. A drag chain conveyor is supported at one of its ends at the other end of the framework and has its delivery end connected to the cylindrical section of the container and is vertically movable with the container from a low profile or collapsed position to a high profile or operational condition. Patent No. 3,586,181 issued to James D. Brock, Chattanooga, Tenn. and assigned to CMI Corporation, Oklahoma City, Okla.

Abstracts and drawings of patents are published as they are issued in the *Patent Official Gazette* each Tuesday. More than 1,800 patents are issued each week. Trademarks are published in the *Trademark Official Gazette*. Copies of the *Patent Official Gazette* and the *Trademark Official Gazette* may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

—Patent Office

Science Calendar

October 18-21—Gaithersburg, Md. — Fifth Materials Research Symposium on solid state chemistry. National Bureau of Standards.

August 9, 1971

International Commerce

- World trade soars
- Textile machine mission tours East Europe
- Gradual upturn seen for Japan
- Netherlands economy slows
- Taiwan investment prospects

Tool Builders' Trade Mission Sees Markets In Soviet Union And Hungary

Newsmemo

U.S. Trade Centers overseas do not go dark between their scheduled exhibitions. They are available to U.S. firms that apply. Some recent uses:

In Tokyo, it was jeans and hot pants in a display called "American Casual Wear", arranged by Safari Int'l for four U.S. textile apparel houses. About 200 trade visitors responded to a carefully screened invitation list of about 500 buyers. Results: sales of $174,500 at the show and an expected $1,620,000 in the next year, plus invaluable press exposure for American styles.

Londoners first saw the trash compactor made by Trans-World Compactors, Falls Church, Va., at the U.S. Exhibition in PAKEX 70. Transworld followed this introduction with two single-company displays at the U.S. Trade Center.

Barwick Mills of Chamblee, Ga., took over the Stockholm Center for five days to get opinions from the Swedish public on patterns to be stocked in Sweden. Mission accomplished.

One good show deserves another, is the motto of the Japanese agent for Macrodata Co., of Chatsworth, Calif. After one five-day promotion drew 150 of 250 invited guests to the Trade Center--and $900,000 in anticipated 12-month sales--the Macrodata rep went back a month later. He invited 30 Japanese engineers, drew 25, and projected $600,000 in new business over the next year as a result.

Litton Business Systems AB, affiliated with Litton Industries, Beverly Hills, Calif., also used the Stockholm Center to introduce new products. Post-display comment: "It's the best place for this kind of introduction: good location, people know the U.S. Trade Center.. We want to come back again."

A full-fledged ad program was part of a between-regular-shows display at the London Center by the New York-based CEM, Ad Auriema. It included notices in British electronics journals, and brochures to more than 20,000 prospects on the firm's U.K. mailing list. Results for 36 affiliated companies: $400,000 in projected 12-month sales.

International Trade Winds

OPTICS—Milroy-Silor, Inc. has begun construction of a facility in St. Petersburg, Fla., to manufacture semi-finished hard plastic lenses for spectacles. Milroy-Silor is a joint venture equally owned by the Milton Roy Co., St. Petersburg, and Silor Optical, Inc., Glen Head, N.Y., a subsidiary of Societe Silor S.A., Paris. Output of the new plant, scheduled for completion next year, will be sold in the United States by Silor Optical, as well as through 14 regional laboratories operated by the Milton Roy group of ophthalmic companies.

MACHINERY—John Deere & Co., Moline, Ill. and FIAT of Italy have reached an agreement to form a joint enterprise encompassing the fields of agricultural and earthmoving machinery. The new enterprise will have its headquarters in Europe and will be owned equally by the two firms. Affected by the agreement are nine Deere and FIAT-owned production plants in Europe, of which four are in France, three in Italy, and two in West Germany.

FREIGHT FORWARDING—Wings & Wheels Express, Inc., a New York-based air freight forwarding company, has formed a joint venture company with Maruzen Showa Unyu Co. Ltd. of Japan. The principal business of the new firm, Maruzen-Air Express International Ltd., will be international air freight forwarding, export and import, and customs clearance.

COMMUNICATIONS — According to GTE International Inc., New York, unique telephones that provide extensive internal and external communications have been adopted for use by Denmark's largest telephone company. The System 800 telephone, which provides small businesses with four outside lines and intercommunications for up to 10 extensions, was developed and is manufactured by ATEA S.A. of Antwerp, a GTE International subsidiary. Under an order exceeding $200,000 with the Copenhagen Telephone Co., ATEA will provide an initial 2,300 units this year and additional units later.

EARTHMOVING EQUIPMENT—The Koehring Co. of Milwaukee is building three 75-ton hydraulic excavators, the largest in the world, for use on a dam project in Argentina. The units move on two crawler treads each over 18 feet long with footprints up to 13 feet wide, have buckets of 2½ yards, and exert over 40,000 pounds of digging force. They are called backhoes because they dig behind themselves and are used for a wide variety of excavating jobs below ground level. D.C. Andrews & Co. is acting as the freight forwarder for the consignee in Buenos Aires, the Vialco Co.

FRANCHISING—McDonald's and Kentucky Fried Chicken are expanding into Japan, and other U.S. franchising chains are close behind. McDonald's, in partnership with two Japanese firms, just opened its first hamburger stand in Tokyo and reportedly plans nine more by the end of this year; a total of about 100 are scheduled to be started in Tokyo, Osaka and Nagoya over the next five years. McDonald's has 50 percent interest in the venture, and Fujita Shoten K.K. and Daiichiya Baking Co. each own 25 percent. Kentucky Fried Chicken has already established several outlets in Japan through a 50/50 joint venture with Mitsubishi Shoji, with an announced goal of 75 stores in major cities. Other U.S. chains moving into the Japanese market include Burger Chef, Dunkin Donuts and Dairy Queen.

World Trade In 1970 Soars To $280 Billion

Free-world exports rose sharply for the third consecutive year in 1970, reaching almost $280 billion. Although shipments grew more slowly by volume, price increases were substantially steeper, so that the value of deliveries again advanced by more than 14 percent—nearly equaling the exceptional gain recorded in 1969.

Inflation was widespread in 1970. In most countries, it permeated the export sector as well as the domestic market. Strong demand at home and abroad pushed production to near-capacity levels in Continental Europe and Japan, creating labor shortages and boosting prices. In the United States and several other major industrial countries, pressures on prices continued and wages rose substantially despite lagging production and relatively high unemployment.

U.S. trade rises sharply

U.S. exports, excluding military grant-aid, also expanded by more than 14 percent in 1970, reaching $42.7 billion. They, nevertheless, grew fractionally slower than those of the world as a whole. Thus, the U.S. share of the market again declined although only moderately, falling to 18.2 percent.

Shipments of agricultural products, led by soybeans and wheat, surged by more than one-fifth. Among nonagricultural goods, sales of machinery advanced strongly, with computers and parts registering particularly sharp gains. Deliveries of the new jumbo jets further stimulated exports, as did increased sales of iron and steel-mill products, steel scrap, and coal. Chemical shipments were well up, following only nominal gains in 1969. On the other hand, deliveries of automotive products dropped, largely due to the auto strike in this country and in Canada.

U.S. exports to most major world areas expanded in 1970. Japan and the European Economic Community (EEC) were the United States' most buoyant markets among developed regions, although deliveries to Australia and New Zealand rose by nearly a fifth after a slight decline in 1969. Despite a large drop in military shipments, U.S. sales to the United Kingdom grew by 9 percent, but those to Canada leveled off. Substantial gains in deliveries to the American Republics, East and South Asia, and Africa boosted U.S. exports to developing countries considerably faster than in 1969. Sales to the Middle East, on the other hand, slowed markedly following a strong gain the previous year. Shipments to Eastern Europe jumped by more than $100 million to exceed $350 million.

Imports, meanwhile, grew by just under 11 percent to reach $40 billion. About a third of the increase stemmed from expanded purchases of consumer goods, notably autos and parts, clothing, and footwear. Higher prices for such foods as coffee, sugar, meats, and fish also contributed to the rise, as did stepped-up arrivals of machinery. U.S. imports from Western Europe were highlighted by increased purchases from the EEC, especially West Germany. Arrivals from Japan, meanwhile, rose by one-fifth sparked by autos, motorcycles, steel, and office machines.

PHOTO ON PAGE 35—Leaving the Ministry of Foreign Trade in Moscow are the members of the tool builders' mission that visited the Soviet Union and Hungary recently. Story on Page 40.

The growth in imports of British goods kept pace with that of the previous year, but the U.S. intake from Canada, Australia, and New Zealand decelerated. Purchases from the American Republics and South and East Asia expanded by one-eighth to lead the advance in U.S. imports from developing areas, although they had risen even faster from the latter region in 1969. Arrivals from Africa also increased, but those from the Near East declined slightly for the second consecutive year. Imports of East European goods expanded by about one-eighth, much more slowly than U.S. sales to that area.

With exports again growing faster than imports, the U.S. trade surplus rose to $2.7 billion in 1970, more than double the previous year's level. Even so, the balance was only about half the size of those recorded during the early and mid-60s.

Japan, EEC lead growth

The developed countries again expanded trade sharply. The rise of nearly one-sixth in their shipments was almost twice the rate for the developing nations and boosted their share of free-world exports to 81 percent. In addition to the United States, the EEC, Japan, and, to a lesser extent, Canada were mainly responsible for this record.

EEC deliveries climbed by nearly 17 percent, virtually equaling their 1969 rate and accounting for just under a third of the free world total. Almost half the $89 billion in shipments represented sales within the Community, up from 45 percent in 1968.

Both France and the Netherlands recorded export gains of more than 18 percent to lead the EEC in this respect. The devaluation of the franc in mid-1969 and the revaluation of the German mark in October of that year made French goods more competitive in foreign markets. The economic boom in the EEC provided the

chief stimulus to Dutch exports.

The world's second leading trader, Germany, increased foreign sales more rapidly in 1970 than in the previous year, despite the inflationary effects of revaluation on export prices. Two-thirds of the more than $5 billion gain in German exports reflected increased deliveries to European markets. For the first time since World War II, German manufactured exports exceeded those of the United States. Italian shipments, on the other hand, rose by only one-eighth, the lowest rate in the Community, as persisting labor unrest disrupted production and limited the supply of goods available for sale abroad.

Shipments by EFTA countries were less buoyant than those of the EEC, advancing by 12.7 percent to reach $43.3 billion. Exports from all members except Sweden and Iceland rose more slowly than in 1969. The United Kingdom, by far the most important trader of the group, recorded the smallest rate of growth in deliveries overseas but still accounted for nearly two-fifths of the EFTA gain. Almost half the British advance was attributable to higher prices.

European imports slow

Reflecting more moderate but still high rates of economic growth, imports into Western Europe were not quite so expansive as in 1969 but again rose faster than exports. Both EEC and EFTA purchases of foreign goods grew by about one-sixth. For the EEC, this pace represented a decided slackening; for EFTA, a sharp increase. The 22 percent advance recorded by the Netherlands ranked highest in the Community, with those of Italy and Germany only slightly lower. Because domestic industry was unable to meet demand, the resultant increase in imports weakened the Italian trade position.

On the other hand, the already substantial German merchandise surplus continued to expand despite another sharp surge in imports stimulated by high levels of industrial and consumer demand and rising domestic prices. Belgium-Luxembourg also recorded a favorable trade balance, the largest in several years. Devaluation was undoubtedly a dampening factor in the relatively low, 10 percent rise in French imports.

Despite an acceleration in the inflow of foreign goods, the United Kingdom achieved by a narrow margin its high-priority objective of a favorable balance in its merchandise trade. British purchases from both the EEC and EFTA rose considerably faster than from the United States and the rest of the world. Among other European countries, both Sweden and Switzerland increased imports by about one-fifth.

The Canadian trade surplus climbed sharply in 1970 as exports, especially of agricultural products, expanded by nearly 17 percent while imports moved up only slightly. Particularly responsible for the lagging inflow were the decline in automotive imports from the United States due to a strike in the North American auto industry in late 1970 and the slower growth of the Canadian economy.

Japan, for the third consecutive year, increased exports at a faster pace than any other developed nation, realizing the most notable gains in sales to Australia and Mainland China. To sustain the economic boom that began in 1965, Japan also accelerated purchases sharply to nearly $19 billion, more than a fourth higher than in 1969. Imports of coal, soybeans, steel scrap, nonferrous ores, and machinery were particularly buoyant.

Australian exports expanded considerably in value but lagged behind the 1969 rate of increase largely because of depressed wool prices and reduced sales. On the other hand, shipments of meat, chiefly beef, and iron ore and concentrates were well up. The rise in New Zealand's deliveries was only nominal as lower proceeds from wool and butter countered the increase in beef exports, especially to the United States. Both countries expanded imports at a faster rate than in 1969. Australia's increases were in diverse lines; New Zealand's were principally in transport equipment, notably military aircraft.

Exports grow at rapid rate for third straight year

	Free-world exports	
Year	Value $ billion	% change from preceding year
1960	113	11.7
1961	119	4.6
1962	125	5.1
1963	136	9.1
1964	152	12.1
1965	165	8.4
1966	181	9.7
1967	190	5.0
1968	213	11.9
1969	244	14.7
1970	279	14.5

LDC trade role declines

Partial data indicate that exports of developing countries reached $53 billion in 1970 and imports $54 billion. Although both levels represented gains of around 10 percent, the share of the less advanced countries in free-world trade again diminished, shrinking to about 19 percent.

Exports of goods from South and East Asia grew more slowly than in 1969, rising by one-tenth to $14 billion. Among the more expansive traders in the area, Hong Kong increased sales by nearly 16 percent to exceed $2.5 billion, while Taiwan expanded deliveries more than twice as fast to over $1.4 billion. Thus, both continued their rapid export pace of the sixties. On the other hand, India reported only a modest gain. Although Singapore boosted sales of domestically manufactured goods at a rapid rate, reduced deliveries of petroleum products to U.S. troops in Viet Nam, as well

as weaker demand and lower prices for rubber, restricted growth.

Imports into South and East Asia accelerated last year, climbing by 11 percent to more than $19 billion. Hong Kong, Singapore, and especially Taiwan posted above-average increases for the area, chiefly in support of their burgeoning, export-oriented manufacturing operations. In the Republic of Korea, official restraints on bank credit and on the inflow of foreign capital held the rise in imports to modest proportions but the Korean trade deficit was still nearly $900 million. India's imports changed but little as the decline in recent years tapered off. Excellent grain harvests have reduced dependency on U.S. P.L.-480 shipments but latent demand in other areas was making itself felt.

Brazil posts gains

Latin America improved slightly on its 1969 export growth rate. Shipments during 1970 ran just over 10 percent ahead of the previous year, reaching a level of $13.6 billion. Brazil posted an increase of more than 17 percent, in large measure due to a sharp rise in coffee prices following a poor crop year. Argentina reported a gain of one-tenth and Venezuela one of 5 percent. Among the larger traders, only Mexico failed to expand foreign sales, due mainly to reduced corn and cotton crops.

Imports into Latin America rose by about the same rate as exports, climbing to around $13.5 billion. Mexico boosted foreign purchases by close to one-fifth, with much of the impetus coming from government expenditures for equipment needed to complete development projects. A surge in the closing months of the year lifted Brazilian imports by around one-fourth. Argentina expanded purchases at only a fraction of the previous year's rate as growth of the economy eased, and Venezuela by less than three percent.

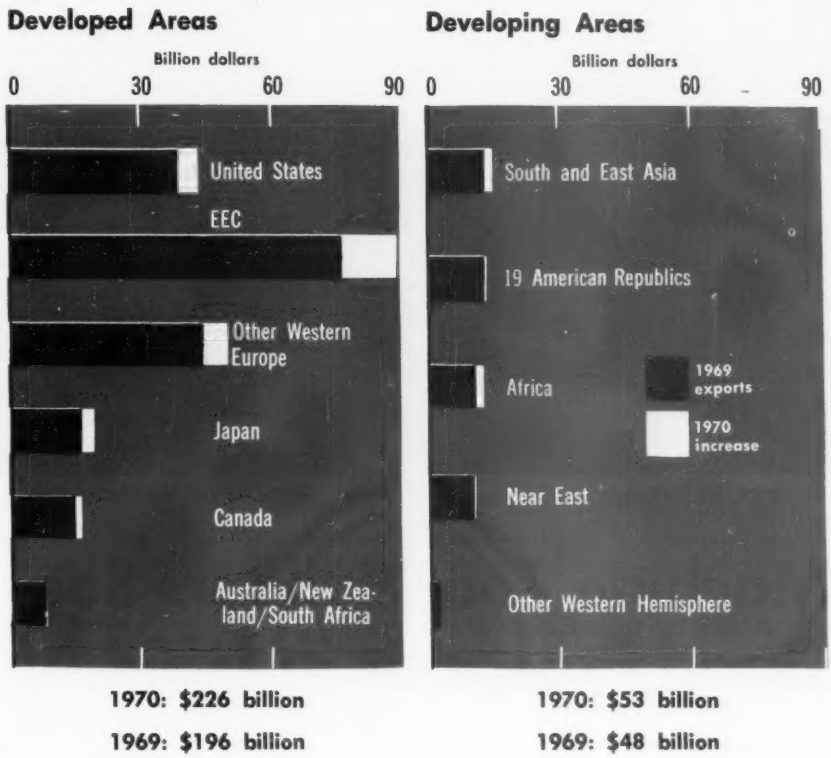
Deliveries by the developing nations of Africa slightly exceeded $12 billion in 1970, up about one-sixth. Nigerian sales advanced by nearly two-fifths to a record $1.2 billion, thanks to rising proceeds from petroleum. Incomplete figures point to strong increases by Algeria, also due to greater oil revenues, and by Zambia as well, although depressed prices and accidental flooding in its largest mine adversely affected Zambian copper sales. Libya boosted shipments by less than one-tenth but led all developing African countries with exports of over $2 billion, again dominated by petroleum.

The African countries increased their imports substantially to about $10 billion. Nigeria reported a gain of over one-half, despite governmental measures to conserve its reserves, as the country moved toward full economic recovery following internecine civil strife. Both Libyan and Zambian purchases reportedly lagged behind 1969 rates of growth.

Exports from the Near East were relatively sluggish, rising by only 7 percent to $10.8 billion. On the basis of nine-month data, Iranian shipments were expanding at nearly twice the average for the area. Israeli sales, stimulated in part by government incentives introduced in 1970, rose by 7 percent, as did those of Kuwait. Iraq and the United Arab Republic, meanwhile, posted smaller gains, the latter despite an increase of one-fifth in cotton sales abroad.

The Near Eastern countries boosted overseas purchases by roughly 7.5 percent to nearly $8 billion. This increase stemmed in part from a faster inflow of goods into Iran and Lebanon. Israel's import expansion, however, slackened after two years of accelerated growth, reflecting government efforts at curtailment.

World Exports In 1970: U.S., EEC Had Half The Increase



MISSION MEMBER SPEAKS—*Thomas R. Rudel (left), Rudel Machinery Co., N.Y., talks with Soviets about U.S. tools.*

Machine Tool Builders See Good Prospects in USSR

U.S. firms that comprised a trade mission visiting Moscow and Budapest earlier this summer report that they received requests for quotations on more than $40 million worth of machine tools in the Soviet Union—and on smaller orders in Hungary.

The company executives emphasize that both countries already produce machine tools of sound and practical design. Thus, the more sophisticated kinds offer the best opportunities. Export control regulations here at home and competition from major producers around the world may be limiting factors; but the interest is lively.

First to USSR

The mission expressing this view of the market potential was organized by the National Machine Tool Builders' Association—its first to the USSR—and sponsored by the Commerce Department. Officials of 15 U.S. firms manufacturing a variety of technologically advanced cutting and forming machine tools spent five working days in Moscow. Several members also spent three days in Budapest.

In the Soviet Union, the executives met top officials of the State Committee for Science and Technology, the Ministry of Foreign Trade, foreign trade organizations STANKOIMPORT and AVTOPROMIMPORT, the USSR Chamber of Commerce, and other agencies. They also met with officials of the Ministries of the Automobile Industry and Machine Tool Building, the major end users of machine tools. They visited the Likhachov automotive factory, a grinding machine plant, a machine tool exhibit, and the Experimental Scientific and Research Institute of Machine Building.

Many of the participants returned with firm requests for quotations on specific machines, according to the mission director, James A. Gray, executive vice president of NMTBA. Gray brought back additional requests for machine tool quotations on types of equipment not manufactured by companies represented on the mission.

Supporting their optimistic outlook the mission members cite, for example, the proposed Kama River truck plant machinery requirements and the need for production facilities for consumer goods that are being emphasized in the new five-year plan announced by the Soviet Government. They point to opportunities for the sale of standard, as well as sophisticated, machines—as the country at present cannot manufacture enough to meet its increasing needs for production equipment.

U.S. export licensing requirements were mentioned as a barrier to increased trade. Soviet officials pointed out that they are able to obtain the equipment they need from manufacturers in other free-world countries—where there are fewer licensing restraints.

During the several shop visits, the mission saw machines, including some with numerical control, from "virtually every major machine tool producing country in the world." The excellent "housekeeping" in all plants visited also impressed the U.S. businessmen; shops and equipment are well

maintained. "The grinding machine plant's measurements and metrology section—in temperature controlled rooms with a variety of the newest and finest instruments to be found anywhere—was considered on a par with the best in the world," the mission observed.

The recent approval of export licenses for some $88 million worth of U.S. machine tools for truck factories in the USSR contributed affirmatively to discussions on expansion of such trade between the two countries.

Soviet officials emphasized that trade is a two-way street and that ways should be sought for importing items of Soviet manufacture into the United States. They expressed interest in exhibiting at the 1972 machine tool show to be held in Chicago under sponsorship of NMTBA.

One mission member summarized his observations of the USSR market as follows:

"We will be dealing with capable, realistic, hard-headed, and knowledgeable officials who will do business with the United States only if it is in the interest of the USSR. We have lost much time in not dealing with them some ten years ago. We are not stepping into a vacuum but we are entering the arena filled with well-established competitors. It will require hard work with consistent backing of our Government but the possibilities are great."

POTENTIAL BUSINESS—*Mission member David Entrekin (second from left), President of Entrekin Computer Division of Cross, Detroit, discusses advantages of U.S. machine tools with representatives of end users in the Soviet Union.*

Although many commodities may be exported to the USSR and Hungary under General License, specific prior approval of the Department of Commerce may be required in some instances.

Also, the specific prior approval of the Department is required before unpublished technical data may be exported to these destinations.

Firms interested in these markets should confer with the Office of Export Control, BIC-840, U.S. Department of Commerce, Washington, D.C. 20230, or with any of the Department's Field Offices before conducting extensive negotiations. All contracts should be made conditional upon obtaining an export license when and if required.

Market in Hungary

In Hungary, several requests for proposals were received. The mission met with representatives of TECHNOIMPEX (foreign trading company for machine tools), the Ministry of Foreign Trade, the Hungarian Chamber of Commerce, and other officials. The U.S. businessmen found that the structure of the Hungarian industry differed from that of the Soviet Union in the greater latitude allowed for individual operation within the governmental structure.

A visit to the Csepel machine tool plant enabled the mission to see a variety of tools in production. "These machines compared favorably with any in existence throughout the free world and included contouring types of numerically controlled machines of recent Hungarian design." Csepel expressed an interest in exhibiting in the 1972 NMTBA show.

The group also toured the Ikarus Body and Coach Building Works, reputed to be the largest manufacturer of passenger buses in the European area.

Of the Hungarian market, the mission concluded: "The most important barrier to increased trade is that Hungary does not enjoy a most-favored-nation status with the United States. Therefore, the Hungarian reciprocal import duties on most U.S. products is [nominally] extremely high. Also, it was claimed that credits and guarantees under Eximbank financing will be necessary to help the United States get into the market and put the U.S. machine tool builders on a more equal footing with the Western European manufacturers."

As for U.S. export control regulations, according to the mission, "the Hungarians indicated that it would be necessary to have some assurance that licenses would be granted before final discussions on an order could take place. Further, they wished some guarantee that a license would not be revoked once it had been granted."

NMTBA is a trade association representing 250 member companies that manufacture about 85 percent of the U.S. machine tool industry's total output. The association is considering other missions for the near future.

BUSINESS INTERVIEWS—*In Triencen, Czechoslovakia, mission member Charles P. Stevenson (2nd from left), and his European agent, Mrs. Ingred Willig (on his right), discuss cutting equipment with Solvakotex officials and mill managers.*

Textile Machinery Makers Bring Back 60 Promising Leads From East Europe

Another trade mission to Eastern Europe . . . another kind of machinery . . . extensive on-the-spot contacts . . . sizable orders expected. . .

Soon after the tool builders' mission to the USSR and Hungary returned to the United States (see pages 40-41), 13 representatives of ten leading U.S. textile machinery manufacturers came back from Eastern Europe—ready to plunge into the working details of more than 60 trade leads developed during their business visit. Sales in the next 12 to 18 months may reach $6 million, they report.

This specialized trade mission, organized by the Commerce Department with the cooperation of the American Textile Machinery Association, represented a cross-section of the U.S. textile machinery industry—companies making a variety of equipment such as automatic cone winders, precision winders, twisters, beamers, sizers, boarding and dyeing machines, button feeders, custom-built machinery for the tire and rubber industry, and machines for shuttleless looms, circular knitting, yardage-type tufting, and cutting and marking.

Sales trips planned

The participants were interested in developing mutually advantageous business arrangements in the USSR, Poland, and Czechoslovakia. They visited Moscow, Warsaw, Lodz, Prague, Triencen, and Brno. Some members also toured plants in several other textile towns in Poland and Czechoslovakia. All companies represented on the mission are planning to follow up this relatively short generalized visit with extended sales trips and more detailed discussions with potential customers in the three countries.

Possibly the biggest "plus" for the mission and its members was the personal contacts made and the interest shown by the U.S. manufacturers in doing business with these East European countries, said Mission Director T. J. Jackson, of the Commerce Department's Bureau of Domestic Commerce. "Representatives of all three countries commented favorably on the United States sending the mission to their countries, although they did wonder aloud why we hadn't come years earlier."

Each of the three countries is vitally interested in earning foreign exchange by exporting their products to the United States and other Western nations. Plans are under way to update and expand textile manufacturing facilities in all three, with Poland and Czechoslovakia placing extra emphasis on this industry.

In both Czechoslovakia and Poland extensive individual discussions were held with mill management and the end users of textile machinery, as well as the various Government agencies charged with actual procurement of equipment.

Like customers in U.S.

"Potential customers in these East European countries are no different from customers in the States," said F. B. Kohli, vice president, TMW Knitting Machinery Division, North American Rockwell Corp. "They want to know the people from the machinery manufacturing companies with whom they intend to deal, and on large purchases they expect to have demonstrated equipment available."

Each country visited has its own individual problems, Robert A. Levinson, chairman of the board of the Duplar Corp., pointed out. "The ground work and organization of the mission gave each member an opportunity to discover just where his company would fit into

potential East-West trade," he said.

"U.S. machinery and machinery manufacturers are simply not known and recognized by textiles manufacturers in East Europe," Charles P. Stevenson, president, Eastman Machine Co., observed. "I felt we had great success, however, in telling our Eastman story both in Poland and Czechoslovakia and I look forward to doing business in both these countries as a direct result of this trip. I feel we will even get some USSR business in the future," he added.

Market size significant

Robert L. Mundhenk, vice president, West Point Foundry & Machine Co., pointed to the difficulties of selling in these areas—language barriers, high U.S. tariff rates, and intense competition from both East and West European manufacturers as well as Japanese. "However," said Mundhenk, "this is much too large a market for us not to make every effort to penetrate."

Problems of price competition, terms of payment, availability of hard currency, and Czechoslovakian displeasure at not having MFN tariff treatment did arise during mission members' discussions with potential customers and government officials, Jackson said. Despite these and other problems, he reported, the mission was deemed by all members highly successful, attributable to three factors: The desire by potential customers to be made aware of latest U.S. developments, as they regard highly U.S. technology and machinery quality; the flexible approach by mission members and their willingness and ability to give complete and detailed answers to the most technical questions on their individual equipment; and the large number of prearranged discussions.

All members of the mission commented on the apparent size of the available market and feel that the mission has given them a wide scope of contacts in the three countries, Jackson concluded.

AT POZNAN FAIR—*Representative of Buehler Ltd., Evanston, explain company's sophisticated metallographic instrumentation to a group of potential Polish buyers.*

Exhibitors At Fair In Poznan Expect To Sell In Poland

All U.S. companies that participated recently in the U.S. commercial exhibition at the Poznan International Fair expect to develop sales to Poland as a result.

Of the six U.S. exhibitors, two made immediate sales: One, for wire-stripping machinery; the other, for a system for nitrate and chloride analysis in soils and plant materials. By the end of the fair, three agency agreements had been negotiated and two others reportedly were under negotiation for the purpose of permanent representation in Poland.

The exhibition, sponsored by the Commerce Department, also featured a Business Development Office, the immediate goal of which was development of business leads for American firms. Longer-range goals included the exposure of a large number of U.S. firms to the Polish market through their catalogs and other literature. In addition, an effort was made to examine the Polish market in machine tools and control devices. The Business Development Office received 112 inquiries from 77 business inquirers.

Instrument Mission To Visit East Europe

U.S. firms supplying instrumentation and related products are invited to join a specialized trade mission being organized by the Commerce Department.

The mission, which will visit Czechoslovakia, Hungary, and Poland Nov. 7-20, follows a similar, highly successful mission to the same countries in 1970. Deadline for membership applications is Sept. 1.

Categories of products, among others, that might be included on the mission are electric measuring, laboratory and scientific, and industrial process instruments; and automatic temperature controls.

The mission will be limited to eight members. Write: Trade Missions Division, BIC-926, Department of Commerce, Washington, D.C. 20230; or phone, Larry Cozart, 202-967-2051.

SERIOUS BUSINESS—*Visitors to the computer show at the Paris Trade Center knew what they wanted, and U.S. exhibitors expect a $25 million bonanza to result.*

Paris Computer Show Sales May Reach $25 Million

Without having to gamble a penny six different exhibitors hit the million-dollar jackpot at the June Industry-Oriented Computer Equipment Exhibition at the Paris Trade Center.

The 50 exhibitors, representing 60 U.S. firms, predicted more than $25 million in sales during the twelve-month period following the June show. In addition to the six that expect more than $1 million, eight others project sales in excess of $500,000.

Two firms found agents, and 41 more representatives were being negotiated with when the exhibition closed.

A total of 1,712 visitors registered.

U.S. exhibitors will have another chance at the booming Western European computer market when the Paris Trade Center stages a Mini Computer and Peripheral Equipment Show next March.

Packaging Show At Stockholm Termed Success

Both newcomers and old hands in the Scandinavian market got what they came for at the Stockholm Trade Center's Packaging Machinery and Materials Show. A total of 843 visitors registered at the June event.

All 14 exhibitors which were looking for representatives either appointed agents or were negotiating with likely prospects when the show closed. A total of 14 agents were signed on the spot and negotiations opened with 97 more.

Off-the-floor sales totaled more than $315,000, and 15 of the 26 exhibitors expect to sell more than $100,000 worth of their products in the next twelve months as a direct result of the show.

The show matched the market and presented a fine array of new products and packaging techniques, many of which clearly met felt needs on the part of the packaging sector in Sweden and the other Nordic Countries. With 10 of the

HIT OF THE SHOW—*Prospective buyers were urged to try out the ultrasonic sewing machine exhibited at the Stockholm Trade Center's Packaging Show.*

exhibitors being new to the market and many of the others showing recent product developments, there was much that they had not seen before to whet the buying appetite of the show visitors. The potential customers responded well, and every exhibitor felt there was a positive reaction to his products, with only one failing to report immediate or projected sales in the next twelve months.

It came as no surprise that the most successful products were, in general, the newest and most innovative. The ultrasonic sewing machine exhibited by Branson Sonic Power was a prime example of a exciting new product that caught the imagination of the market.

U.S. Firms Can Exhibit At International Events

U.S. exhibitors can display their wares at the following upcoming international trade shows:

Oil and Colour Chemists Assn. Technical Exhibition, Empire Hall, Olympia, London; Apr. 17-21, 1972. Write: R. H. Hamblin, Oil & Colour Chemists' Assn., Wax Chandlers' Hall, Gresham St., London, EC2V 7AB.

Eurexport, reputedly the first international exhibit dealing with the problems of exporting commercial products; Rouen, France, June 5-11, 1972; address: Eurexport, C.O.M.E.T., 48 Quai de Paris, 76 Rouen, France.

Industrial Finishing and Anti-Corrosion Exhibition, Earl's Court, London; June 6-9, 1972. Write: Industrial Finishing & Anti-Corrosion Exhibition, 3 Clements Inn, London, WC2A 2DB.

International **Chemical & Petroleum Engineering** Exhibition, Olympia, London; Sept. 18-22, 1972. Write: Sales Manager, ICAPE 72, Industrial & Trade Fairs, Ltd., Commonwealth House, New Oxford St., London WC1A 1PB.

U.S. Direct Investors Borrowed Over $3 Billion Abroad In 1970

Nearly $3 billion of long-term foreign borrowings were used to offset direct investment abroad by U.S. firms in 1970. This compares with $2.6 billion in 1969 and $2.2 billion in 1968, the first year of the Program.

Donald P. Katz, Director of the Department of Commerce's Office of Foreign Direct Investments, said that "After deducting for the use of the proceeds of foreign borrowings, regulated foreign direct investment, exclusive of investment in Canada, totaled $3.8 billion last year compared with $2.4 billion in 1969 and $1.2 billion in 1968." Direct investment is the sum of net capital transfers plus reinvested earnings of foreign affiliates. Katz cautioned that because of various program-related adjustments and differing methods of computation, the data do not necessarily correspond to actual international flows as reported in the official balance of payments.

All areas increased

Transfers of capital increased to all scheduled areas, with Schedule B countries the leading recipients in 1970. More than two-thirds of the direct investment in Schedule C was offset by funds borrowed abroad, compared with one-third for Schedule B and somewhat less than this for Schedule A. Direct investment in Canada, which is in effect exempt from Program limitations, also showed an increase over 1969, with capital transfers rising substantially.

The three-part report on the 1970 program released by OFDI provides the first detailed survey of the structure of direct investors' foreign borrowings. On Dec. 31, 1970, the amount of outstanding long-term foreign borrowings reported in the survey was $11.3 billion. Of this, long-term debt in the form of public offerings and private placements accounted for $5.2 billion, while bank term loans ($3.6 billion) and renewable short-term loans ($2.3 billion) accounted for most of the remainder.

Not all of these borrowings have been used as an offset to direct investment; at the end of 1970, $3.1 billion was still held in the form of "unused" proceeds, most of it in the United States.

Shifts money source

Katz observed that a major effect of the program had been to shift financing of U.S. direct investment to foreign capital markets, not only by direct investors in their own names, but also through increased foreign affiliate borrowing. Additional data on the financial structure of foreign affiliates are contained in the report. A separate and more detailed examination of the data on foreign affiliates, with additional tables, is available on request.

Direct investors are defined in the Foreign Direct Investment Regulations as corporations and individuals owning or acquiring a 10 percent or greater interest in a foreign business enterprise.

The regulations divide foreign countries into three scheduled areas: Schedule A consists of the less-developed countries; Schedule B embraces a limited number of industrialized or partially industrialized countries, such as the United Kingdom, Australia, New Zealand, Ireland, Spain, Japan, and certain oil producing nations; and Schedule C covers the rest of the world, including primarily the industrialized countries of Western Europe and South Africa.

Copies of the report and the supplemental study may be obtained from the Information Office, Office of Foreign Direct Investments, Department of Commerce, Washington, D.C. 20230. (202-343-7317).

Gradual Economic Upturn Is Predicted For Japan

The Japanese economy remains in a period of adjustment that began nine months ago, reports the U.S. Embassy in Tokyo. This adjustment has featured a high level of finished goods inventories and a very substantial slowdown in the growth of new private plant and equipment investment. Since last October, the monetary authorities have permitted a gradual and by now appreciable easing of domestic credit and, since April, fiscal policy has turned from a neutral to a mildly expansionary posture.

Recent trends suggest that the inventory adjustment has yet to run its course. New private plant and equipment investment shows no sign of picking up, and a mood of caution dominates industries, such as iron and steel, automobiles, and electrical machinery. However, some sectors of the economy have continued the upward trends in evidence since 1965. Thus, despite mixed trends, underlying demand conditions have kept the economy growing at an annual rate in real terms of about 8.5 percent in recent months.

Overall, the second half of this year is expected to see a firmer tone in the Japanese economy. However, new private plant and equipment investment is likely to remain in the doldrums, at least until the closing months of this year, owing to excess production capacity in industries such as iron and steel, automobiles, electrical machinery, and chemicals. Thus, a strong economic advance simply is not in the picture for 1971. The economy probably will grow at an annual rate of about 8.5 percent in real terms this year. By 1972 this rate should reach 9 to 10 percent. In short, a gradual expansion by Japanese standards seems in store for the economy.

The slowdown already has caused a large increase in Japan's trade surplus, mainly owing to slack in the growth of imports rather than an increase in export growth. Thus, the moderate tone of the domestic economy appears almost certain to contribute to a record-high trade surplus this year, possibly exceeding $6 billion, and Japan's balance of payments position will remain very strong this year.

June trade figures

Preliminary U.S. Customs figures indicate that through June of this year U.S. exports to Japan fell by 6 percent over the corresponding period of last year, while U.S. imports from Japan rose by 30 percent on the same basis. Thus, U.S.-Japan trade broadly reflects the slower pace of Japanese imports resulting from a more moderate growth rate of the Japanese economy.

While some categories of U.S. raw materials exports such as coal still show growth, others, including ferrous scrap and nonferrous metals, have actually fallen behind the January-June 1970 performance rate. Since such U.S. exports to Japan rise rapidly during industrial and investment booms in Japan, the present mixed picture of U.S. export growth probably will continue until the Japanese economy begins another strong upswing.

Early indications point toward total U.S. sales of agricultural commodities to Japan this year at a slightly higher level than the $1.2 billion level of 1970. U.S. agricultural exports may be enhanced somewhat by forthcoming liberalization. However, high feedgrain prices have triggered a slowdown in Japan's livestock and poultry industries which may have a depressing effect on sales of U.S. feedgrains to Japan this year. This problem will be compounded by the Japanese Government decision to use about one million tons of rice for feed. The general sluggishness on feedgrains will be partly offset by slight increases in exports of soybeans, cotton, and processed foods.

Capital goods, paced by aircraft and nuclear power sales, probably will continue to rise, despite mixed trends for machinery caused by the sharp slowdown in new plant and equipment investment in Japan since mid-1970.

The spectacular rise in disposable income in Japan in recent years has created new markets, ranging from processed foods to leisure-time activities, such as travel and related services, and recreational equipment. At the same time, demand for new housing and related durable consumer goods has reached an all-time high in recent years with no end in sight for this rapidly expanding market. Finally, as a further sign of changing attitudes, environmental and pollution control are receiving increasing public attention and gradually rising expenditures, both public and private, which may create new market opportunities for U.S. exporters.

The Organization for Economic Cooperation and Development has just published its annual review of the Japanese economy. Chapters in the 86-page booklet include The Present Slowdown, Recent and Medium-Term Price Developments, Expansionary Policies and Short-Term Prospects, The Balance of Payments, and Policy Issues and Conclusions. Copies are available for 80 cents each from the OECD Publications Center, 1750 Pa. Ave. NW., Washington, D.C. 20006.

Although most of these changes in Japanese consumer habits and attitudes require market development on the part of U.S. businessmen, the increasingly affluent Japanese consumer offers excellent opportunities for a wide range of consumer durable and soft goods. Moreover, access to the Japanese market for such goods and services has improved considerably over the past few years, despite all of the well-publicized difficulties of doing business in Japan. Since the consumer goods market in Japan is almost certain to grow by from 15 to 18 percent per year over the next decade, small beginnings in this area now could lead to very sizeable markets for U.S. exports toward the end of the 1970's.

Some recent actions

Following are some recent capital and trade liberalization actions.

► Japan decontrolled a number of tariff items on Jan. 1, including fresh grapes, scallops, cake mixes, macaroni, color film, whiskey, etc.

► Japan implemented the last stage of the Kennedy Round tariff reductions on Apr. 1, nine months ahead of the original schedule.

► Twenty more items, including grapefruit, were liberalized at the end of June. Further liberalization action is scheduled to be effected next month.

► The Japanese automobile industry was opened to foreign investment on a limited scale in April of this year.

► Effective Feb. 1, the amount of dollars authorized to be carried overseas on business and overseas study trips was increased 50 percent to $3,000. Controls on remittances abroad were simultaneously eased. Grants and donations abroad are now given automatic approval, and the same is true for lending to relatives living abroad as long as such lending is not for business purposes.

► The following changes in Japan's foreign exchange controls are also in effect: a) Japanese tourists are allowed to take $3,000 per trip instead of the former $1,000; b) ordinary residents and Japanese business firms who were allowed to hold foreign currency for 10 days and 20 days, respectively, before converting into yen, are allowed to hold such currency for one month and six months, respectively; c) Japanese business firms with overseas branches or affiliates will no longer be limited in the amount of foreign exchange deposits they may maintain in order to maintain their operations; d) Japanese exporters will be allowed to receive payment in any currency rather than one of the formerly designated 15 currencies; and e) possession and importation of foreign coins (except gold coins) for collection purposes will be liberalized.

► The Finance Ministry announced that from July 1 Japanese citizens have been allowed to purchase foreign securities. There are no limits on such purchases although payment will have to be in yen.

► The fourth round of capital decontrol is expected to take place some time during the summer of this year, but no date has been set.

JAPANESE 'BEEHIVE'—*A construction technique called the "beehive truss system" because its steel framework resembles the cellular structures built by bees has been incorporated in the 14-story, 252-unit apartment building above, in Yokohama, for housing employees of Nippon Kokan, Japan's second biggest steelmaker.*

Bank business changes

Japan's strong balance of payments position, rising foreign exchange reserves, and concern over speculative pressures on the yen have combined to further restrict both short and long-term borrowing from abroad. Thus, the basis of American bank business with Japan has changed rapidly and probably permanently in the years since 1969. Japanese import financing, heretofore heavily dependent on overseas sources, particularly in the United States, will be increasingly shifted to domestic financing, and long-term borrowing abroad by Japanese firms for use in Japan will face increasingly stringent controls.

Dutch Economy Receding After Peaking Last Year

The Netherlands economy appears to have peaked in 1970 and to be receding in 1971, reports the U.S. Embassy in The Hague.

Industrial production, investment, labor productivity, disposable income, and consumer spending increased in real terms last year considerably more than they did in 1969. While this occurred, however, the pressure of increasing costs and narrowed profits built up. Wages led the way by rising two percentage points more than in 1969. Unemployment was at a low 1.1 percent at the end of the year, and registered job openings well surpassed unemployment.

Further labor problems?

Increased wages were partly due to the Rotterdam Port strike in August and September and the rash of 400-guilder bonuses that spread from it through most of Netherlands' industries, but it was due in greater degree to the workers' growing awareness of their economic and political power and their estrangement from labor leaders. The September strike may foreshadow further problems in the future.

As a result of these pressures there were widespread reductions in profits. The four largest companies, Shell, Unilever, Philips and AKZO, showed less profits than 1969, especially in the fourth quarter, and there were 8 percent more business failures, many of which were in the labor-intensive service enterprises.

Largely because of labor and import costs, and in the face of domestic price control measures, the cost of investment in new industrial fixed assets rose twice as much as the consumer price increase. Investment, however, as well as the pressure on prices, was buoyed up by the continuing strong influx of foreign capital amounting to some $640 million net in place of a small outflow in 1969. The Netherlands money supply continued upward.

The inflow of foreign capital, particularly dollars, thus posed a dilemma. In order to contain the inflation supported by new industrial and commercial financing, the authorities wished to maintain high interest rates, but this itself attracted foreign capital. The lesser evil in the Dutch view, and in other European countries, was to reduce interest rates in order to approach a balance in capital flows; accordingly, they lowered the central bank rate from 6 percent to 5.5 percent on Apr. 5, 1971, and prime commercial rates were lowered in response. The central bank also soaked up considerable sums of money by issuing bonds.

The large capital influx extending through 1970 found many domestic uses owing to high returns on Dutch security issues. As a result the most urgent commercial demands were met, and Dutch domestic yields dropped somewhat but are still firm, and external guilder issues continue to be well accepted in the international monetary market owing to Dutch productivity and the strength of the guilder.

While investments rolled in during 1970, the trade balance, at the other extreme of the balance of payments, registered a 60 percent increase in deficit over 1969. A sizable deficit in current account by transaction arose in place of a nominal deficit the previous year. The cost of imports was only 88 percent covered by exports, as compared to 91 percent in 1969.

This deficit can be explained in terms of greater increases of import prices (7 percent) than export prices (3.5 percent), but it was made possible by the heavy Dutch demand which grew out of increased wages, the urge to initiate or complete new industrial or commercial facilities, and the money supply. In many fields the heavy demand was forced toward imports because Dutch production facilities were already operating at capacity. Exports in 1970 totaled more than 1969 but suffered a downward trend through the year, while imports maintained a consistently higher level.

Anti-inflation actions

Owing to price controls instituted to combat the inflationary surge in early 1969, consumer prices were held to a moderate 4.4 percent increase in 1970 in place of 6.5 percent in 1969. However, the trend during 1970 was up, and the push for higher prices following settlement of the port strike prompted the Government to take anti-inflationary action in several fields:

► Amended price control regulations were introduced in November and renewed in March to be in force until late 1971, subject to review this month. These regulations allow price rises to meet "external" costs but not wage increases unless the profit margin is thus reduced to under 7 percent.

► Facing the Dec. 31 expiration of labor contracts reportedly covering 550,000 workers, the Government decreed a wage pause by extending contracts for six months following expiration but allowing increases totaling 4 percent during those six months.

► A ceiling was placed on consumer credit by limiting credit turnover in 1971 to an increase of 8 percent over 1970 (1970 increase was 12 percent).

► Taxes were raised on January 1 by a temporary 3 percent surcharge on income tax, wage tax, corporation tax, special consumer tax on passenger cars, and excise tax on gasoline.

► The tax on value added (TVA)

was increased as of Jan. 1 from 12 percent to 14 percent on a great variety of goods and services, while it was reduced to 4 percent on most foods and on restaurant bills. This was done not only as an anti-inflationary measure but also for budgetary needs and to align the Dutch TVA with the EEC plan.

The tight labor market is viewed as a critical factor in the economic outlook for the rest of 1971. Increased wages expected after the six-month pause, which are officially predicted to rise 12 percent during the year, are expected to drain liquid resources, cut profits, and reduce the level of industrial investments.

At the same time, a tendency is being noted for companies to change their production methods to capital-intensive systems where possible. This, however, puts a strain on their investment capacity, especially in view of fast rising costs of industrial installations. It has already occurred that a large project, a Shell-Dutch State Mines refinery in Limburg province, first estimated to have a cost of $100 million, has been shelved because of a 40 percent rise in estimated costs over a period of two years or so.

As a matter of fact, industrial investment is expected to increase by only half of the amount it went up last year, even at higher current prices, and only those new projects will be carried out which are firmly scheduled. Availability of financing, i.e., liquidity, may be decisive for the expansion plans of some entrepreneurs. This in turn may depend on continued capital inflow, which is influenced by visible profit margins, balance of payments trends and government monetary policy.

Thus the importance of inflation is emphasized as a critical factor. The combination of rises in labor costs, imports, rents and TVA is expected to raise the consumer price level 6.5 percent this year, according to the Central Planning Bureau. By the end of March, however, it had already risen 3.2 percent, and many believe it will go up 8 percent this year. While labor productivity increases 3.5 percent, which is lower than last year's increase, Central Planning says that real disposable income should go up only 2.6 percent.

On the basis of present trends, U.S. exports to Holland may well rise by 15 percent in 1971. This would represent some leveling off after the remarkable 1970 growth rate of 23 percent, but is still respectable. In addition, the U.S. market share may push slightly above the 1970 level of 9.8 percent.

However, local banking contracts look askance at the labor situation and predict rank and file pressure for still higher wages. The attitude is frequently expressed among businessmen that the wage-push and inflation are the central causes of concern and now is not the time to expand. In fact, unemployment edged upward in February.

Trade predictions

Predictions of trade are also rather gray. The volume of exports (not current value) may rise by 7.5 percent this year, but only in case of price concessions which will squeeze profits, according to one banking analyst. The trade balance and current account by transactions may show deficits similar to 1970, and only well administered government measures would be able to reduce them, and only on the order of 25 percent.

Both international trade and capital market conditions are seen to depend considerably on conditions abroad, but the hope is expressed that the government's special program can be fully implemented and thus lead to a greater reduction of interest rates. The 1971 government budget itself offers some hope to business under pressure. The budget contains an increase of 11 percent ($900 million) over 1970, split half and half between price and volume increases. The main increases over 1970 are social provisions, education and science, transport and public works, and service of the national debt.

In common with most of Western Europe, the Dutch economy has reached that uncertain point, as in the United States last fall, where it is going in two opposing directions simultaneously. Unrequited wage pressure is high, but employment is declining. Consumption is strong but investment is softening. Prices restrained by fiat may soon be restrained by market forces. The Government is justifiably concerned at the same moment about both inflation and recession. The Dutch market place is inevitably influenced by world cyclical conditions over which Dutch policy makers have little control. As a result, the prevailing mood of business is one of uncertainty.

In this teeterboard atmosphere, U.S. traders and investors are in a relatively strong position. Big U.S. export lines—agricultural raw materials, heavy machinery, sophisticated electronics, and basic instrumentation and assembly line equipment for the metallurgical and chemical industries—are comparatively immune to short-term vicissitudes in the business cycle. They are buoyed by expansion plans developed in 1970 and earlier and by the longer-term optimism engendered by the prospect of an expanded European Common Market.

New American investment in the Netherlands is not expected to be significantly affected by the short-term local uncertainties. Most of the new projects are linked to basic industries, particularly chemicals and hydrocarbons, which have a solid future in the growing European market. Low interest rates in the United States and the ready availability of Eurodollar financing in Europe should facilitate these investments.

U.S. Investment In Taiwan Up Substantially In 1970

Taiwan has achieved a very rapid rate of economic growth in recent years. Gross national product in 1970 reached $5.4 billion, an increase, in real terms, of 10 percent over the previous year. This has been the average annual rate of growth since 1965. Projections of economic growth for this year call for a slightly higher rate, and for an increase in industrial production of over 20 percent. This vigorous growth has been supported by the important contribution made by private foreign investment—including capital, new industrial processes, and technical and managerial skills—from the United States and other external sources.

American investment projects valued at $68 million were approved by the Government of the Republic of China last year, the highest annual figure to date. This record investment is believed to have partly reflected the anticipation of somewhat higher taxes in the new investment law which became effective Jan. 1, 1971. All U.S. direct investment approved between 1952 and 1970 has amounted to $242 million. This compares with total investment approvals of $559 million from all sources in the same period, including $163 million from "Overseas Chinese," mainly from Hong Kong and Japan, and $89 million from Japanese firms. Both the value of total investment approvals and the value of approvals from U.S. sources more than doubled in 1968-70 over the cumulative results for 1952-67. Most foreign investment projects approved by the Chinese Government have been carried out as planned.

New industrial policy

There was some slackening in the investment inflow in the first part of 1971 as the Taiwan Government began to emphasize a new industrial policy more closely attuned to its current economic development planning which gives priority to basic and more technologically advanced industries.

Many prominent U.S. firms have investments in Taiwan, primarily in electronics and electrical appliances (with investment approvals totaling $135 million) and in chemicals including pharmaceuticals ($54 million). American companies also have invested in facilities to produce such items as table flatware, sewing machines, and dairy products. European and Japanese investors similarly have concentrated on electronics, electrical appliances, chemicals and pharmaceuticals. Investment by "Overseas Chinese," however, has tended to be in small service enterprises, and in food and beverage processing and textile and garment industries.

TAIWAN: ELECTRONICS CENTER—*This modern U.S. plant near Taipei makes electronics parts. Taiwan promises to be one of Asia's largest electronics centers.*

The attractiveness of Taiwan to foreign investors is due to a variety of factors. It has exhibited continued stability for a number of years. The working force is literate, industrious, and adaptable, and wages have remained relatively low. Plant construction is inexpensive, the currency is sound, and inflation has been held in check.

Important investment in basic infrastructure and continuing plans for its development assure an adequate supply of relatively inexpensive electric power and expanding highway, railway, airport and harbor facilities. Loans from multinational lending agencies, and from the U.S. Export-Import Bank, have supplemented domestic savings to finance infrastructure improvement. Further, the Chinese Government's input in the development of manpower resources includes nine years of free, compulsory education and efforts to strengthen vocational training and science education.

While Government planners are showing a preference for more sophisticated enterprises as well as for a greater use of local-origin materials in manufacture for export, they stress the need for a continued inflow of foreign investments.

The Republic of China offers generous incentives to foreign investment. U.S. Ambassador Walter P. McConaughy, in addressing a business group in Taiwan recently, noted that the Chinese Government "fully understands the contribution

of foreign investment to Taiwan's economic development and looks for new foreign capital to help speed the process of industrial modernization and to develop the export industries."

A revised Statute for the Encouragement of Investment went into effect Jan. 1, 1971. Although it increases the business taxes to which qualifying firms are subject at the expiration of the tax exemption period, in certain other respects it provides greater benefits to investors.

The investment law permits 100 percent foreign ownership, and the incentives include remission of 100 percent of annual net earnings, and after two years, 15 percent of invested capital each year; a five-year business income tax holiday or, alternatively, accelerated depreciation; exemption or deferral of tariff levies on imports of machinery and materials; guarantee against expropriation for 20 years after the start of a business that is at least 50 percent foreign-owned, and reasonable compensation for a business with less than majority foreign ownership. Taiwan has also taken steps to simplify administrative procedures for processing investment proposals, obtaining entry visas, registering companies, and importing machinery and materials.

In considering new investment proposals, the Government of the Republic of China is now placing special emphasis on the introduction of sophisticated, capital-intensive and modern production facilities; significant input of technology and management skills; employment opportunities for nationals as managers and technicians, as well as skilled laborers and production line personnel; foreign exchange earnings, market development and marketing assistance; and maximum use of competitive local materials, parts and components.

Y. S. Sun, Minister of Economic Affairs, outlined to the press last November specific fields of foreign investment which his Government had particular interest in attracting. These included energy development; steel; shipbuilding; machinery, especially manufacture of automobiles, rolling stock, and farm machines; petrochemicals; aluminum and copper mining and smelting; electronics; textiles, including modernization of dyeing and processing facilities; and export industries producing such items as toys, wigs, and porcelain.

TAIWAN'S SHENAO THERMAL POWER PLANT—*Increasing emphasis is being placed on expansion of thermal power facilities. The plant above is near Keelung.*

Despite the fast pace of current economic activity on Taiwan, potential investors may be asking whether recent moves by the United States to improve relations with the People's Republic of China and the withdrawal of diplomatic relations by Canada, Austria, Italy, and some other countries would slow Taiwan's growth. **Commerce Today** ***asked Marshall Green, Assistant Secretary of State for East Asian and Pacific Affairs, for his views on this question. He replied that "The President has given public assurance that the evolution of our dialogue with Peking will not be at the expense of international order or of our commitments to the security of the Republic of China and our other Asian allies." He also pointed out that Taiwan's trade with the United Kingdom and the Netherlands, both of which have long recognized Peking, has risen steadily. He therefore did not foresee adverse effects on the prosperity of Taiwan or its investment climate.***

In Taiwan as in other friendly developing countries, a U.S. Government entity, the Overseas Private Investment Corporation (OPIC), encourages financially sound new American investments or expansion of existing projects. For American investments that are competitive and welcome, and contribute to social and economic progress, OPIC insures against loss due to specific political risks of currency inconvertibility, expropriation, and war, revolution or insurrection; guarantees against loss from commercial risks; makes direct loans in dollars; and provides pre-investment information and counseling, and shares in the cost of pre-investment studies.

Further information about investment opportunities is available from the Chinese Investment and Trade Office, 515 Madison Avenue, New York, N.Y. 10022. U.S. businessmen visiting Taiwan may obtain investment information and guidance from The Industrial Development and Investment Center, 71 Nanking East Road, Section 2, Taipei, Taiwan, Republic of China.

Foreign Service Posts Forecast Economic Trends In Five Nations

Following are brief indicators taken from Foreign Economic Trends recently received by the Department of Commerce from U.S. Foreign Service posts in five countries. Over 150 such reports for 117 foreign markets, ranging from 4 to 12 pages each, are received yearly.

Annual subscription to the Foreign Economic Trends series may be obtained for $15 from any Commerce Field Office or Supt. of Documents, Government Printing Office, Washington, D.C. 20402.

Zambia: As a leading supplier of heavy mining and construction equipment, the United States is likely to benefit from the expansion of Zambia's mining sector and the expected emphasis on road construction in rural areas. Imports related to education, housing, rural electrification, and water development are also promising prospects. The priority which the Government intends to give to agriculture and the development of rural industries should bring about an increased demand for the importation of food-processing equipment, while there will continue to be a demand for imported foodstuffs, particularly corn. The Zambian demand for transport equipment, including light aircraft, should remain strong, and the increasing exclusion of imports from South Africa should increase overall opportunities for sales of U.S. goods. The market for consumer items, however, is clouded by the Zambianization of retail and wholesale trading.

Cyprus: The remainder of this year should see continued development in the manufacturing sector, as well as expanding contruction in the tourist sector. With conditions of full employment and several major Government development projects scheduled to get under way, inflationary pressure through the tight labor market will continue to be a major preoccupation. On the other hand, agricultural yields should move up well after heavy April rains, cutting the large grain imports of 1970. Tourism increases of nearly 25 percent in 1971 should bring total gross receipts from tourism to about $26.3 million. Construction and manufacturing will continue at roughly the same percentage of GNP. Judging from limited trade data available, the merchandise deficit should increase by about 20 percent during the current year.

Switzerland: A decline in the real growth of GNP to 4.3 percent, a decrease in the rate of expansion of industry, an expected decline in the record 1970 global demand, an increasing reliance on imports bringing concomitantly higher costs and prices from abroad, and a constant labor market suggest a slowdown in the Swiss economic boom. However, increasing costs and prices, anticipated higher public expenditures, and anticipated higher private consumption point to a rising price picture. Swiss Federal authorities continue to rely on renewed, but somewhat more liberal, voluntary credit restraints by banks for containing inflationary pressures. Maintaining price stability and countering effects of external inflation on the Swiss economy have become the major preoccupation.

Laos: Construction of the Nam Ngum Dam, which will undoubtedly have a decisive effect on the long range development of the Vientiane Plain and Vientiane itself, is proceeding on schedule and will be completed in December 1971. Initially the dam will be capable of producing 30,000 kilowatts of power. Funds are currently being sought for the purchase of three additional 35 MW generators which will be used to provide power that will be sold to Thailand until it can be utilized fully in Laos. The dam will insure adequate power for Vientiane and neighboring areas for a long time to come. The electricity distribution system in Vientiane is now being improved with funds from a German loan. When the dam is completed, irrigation of the Vientiane Plain using Nam Ngum power to pump water from both the Mekong and Nam Ngum rivers will be possible.

Austria: When the current economic boom will subside is unclear. A definite slowdown was predicted last year, but in fact Austria's growth of over 7 percent in 1970 outpaced that of any other European country, and this vigorous expansion continued into early 1971. There are signs, however, that the driving force for this expansion is shifting gears, with domestic demand, particularly for investment, replacing exports as the main impetus. This change, combined with capacity utilization of resources and slackened foreign demand, suggests that 1971 may finally see a winding down of the three and a half year-old boom. No one is predicting any real trouble, however, and all indications point to a substantial growth in GNP of between 4 and 5 percent during the year as a whole—an impressive performance by any measure.

Certainly the United States should continue to find an expanding and receptive market in Austria. In addition to American items which have traditionally enjoyed good sales here, the possibilities for manufacturing and distribution of a wide variety of new products under license or franchise look better and better. Also, Austria's important role in East-West trade offers promising vistas for U.S. firms interested in the Eastern market.

World Trade Actions

Andeans Enact Investment Code; Italy Drops Taxes

Andean Group: The statute governing regional investments by foreign capital in the Andean Group countries entered into force on July 1, with a number of amendments that tend to slightly liberalize it.

Article 3 of the Code prohibits direct foreign investment in activities considered adequately covered by existing investments, and this remains unchanged. Paragraph C of Article 3 establishes an exception in the case of foreign investors who invest in a national firm to prevent its imminent bankruptcy, provided the foreign investors agree to sell the acquired shares to nationals within ten years. The new admendment extends the period in which acquired shares must be sold to nationals to 15 years and provides that only that percentage of the stock necessary to transform the firm to a "national enterprise" (one in which more than 80 percent of the stock is held by nationals) must be sold.

Article 17, which restricts the access of foreign firms to local credit to "exceptional" cases and in accordance with conditions to be set forth by the Commission, was modified by striking the word "exceptional". The regulations governing access to local credit are yet to be issued.

The last paragraph of Article 28, which defines existing foreign companies as those legally organized in the country as of "Dec. 31, 1970" was changed to "July 1, 1971."

A similar date change occurs in the first paragraph of Article 30 where "July 1, 1971" is substituted for "Jan. 1, 1971". The paragraph now reads: "Foreign companies that may be established in the territory of any member country after July 1, 1971, shall agree, in representation of their shareholders, to place on sale for purchase by national investors, gradually and progressively, in accordance with the provisions of Article 31, the percentage of their shares, participations or rights necessary for the transformation of such companies into mixed companies, within a period which may not exceed 15 years in Colombia, Chile, and Peru, and 20 years in Bolivia and Ecuador."

Article 35, which provided for an option of preference to the State in the sale of shares and other rights to national investors, was also amended. It now leaves the decision whether to retain the preference option to each of the member states of the Andean pact. Colombia has already indicated that it will not exercise the option.

An English translation of the Andean Investment Code, Decision No. 24, is available upon request from the American Republics Division, Bureau of International Commerce, Department of Commerce, Washington, D.C. 20230.

Italy: Effective August 2 all goods imported into Italy are no longer assessed the 0.5 percent administrative tax and the 100 lire per metric ton statistical fee. The law implementing this change, published in the June 27 Official Gazette, provides for the reimbursement of these taxes on imports from Common Market countries since July 1, 1968.

Trinidad & Tobago: The Purchasing Officer of the Trinidad and Tobago Electricity Commission has issued an urgent call to the United States firms summitting bids on tenders to observe the General Conditions of Contracts applicable to all quotations being submitted. The Commission states that "attention must be paid especially to paragraph 6 of the General Conditions" which requires tenderers to give a validity period of ninety (90) days from the date of the opening of bids, and that this paragraph has been consistently ignored, with most U.S. tenderers quoting delivery periods of one (1) month or slightly more. This shorter period is said to be inadequate for the processing of tenders and placing orders. The Commission also referred to instances of late notification by suppliers of price increases due to orders being placed after the validity date. The Commission has decided that the General Conditions and especially adherence to the 90-day validity period will be strictly observed, since it is one of the requirements for the operation of the IBRD (World Bank) loan. Copy of sample General Conditions of Contracts available from Business Opportunities Staff, BOS-584, U.S. Dept. of Commerce, Washington, D.C. 20230. (202-967-4675).

Checklist Issued

The latest issue of the* Semi-annual Checklist of International Business Publications *has been issued by the Commerce Department's Bureau of International Commerce.

The report classifies BIC publications by subject in accordance with the Government's Standard Industrial Classification (SIC) 2-, 3-, and when possible, 4-digit code numbers. In addition, the* Checklist *covers non-product oriented publications arranged by country, area or region.

The 36-page publication is available upon request from any of Commerce's 42 Field Offices or the National Technical Information Service, Room 1043, U.S. Dept. of Commerce, Washington, D.C. 20230.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine. The section that follows presents details about U.S.-sponsored overseas exhibits, licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies, appoint agents, major construction and expansion projects, and U.S. visits by foreign buyers.

U.S. Promotions Overseas

SCANDINAVIA. Educational & Industrial Training Equipment. Scandinavian countries are intensifying their use of modern, advanced educational and industrial training aids and equipment applicable to public and private educational institutions, universities, adult education programs, company and labor union manpower training programs, business and management colleges, government agencies, libraries and television and film enterprises. Officials of educational institutions, industry and governmental organizations have indicated the time is ripe for an exhibition featuring the latest U.S. technology in this field including programmed and computer assisted instruction, electronic responders, closed circuit TV, video tape recording systems, microfilm reading and storage systems, language laboratories, teaching machines, projection equipment and software. Call John R. Crown, 202-967-4421. Stockholm Trade Center. Sept. 20-25.

FRANCE. Industrial & Commercial Security Equipment. The French businessman is becoming increasingly aware of his need for effective protection against losses incurred by fire and theft. Many French industrial plants, banks and commercial establishments have inadequate safeguards, or none at all. An important, expanding marketing opportunity exists for American manufacturers of alarm systems, fire detection and extinguishing equipment, parking lot security equipment, personnel identification systems, security cameras, electronic locking systems, pilferage prevention devices, check protection systems, document destruction equipment, and ancillary products. This event is being scheduled concurrently and promoted in cooperation with EUROPROTECTION, a major European exhibition of industrial security and safety equipment. Call Bruce Strong, 202-967-2835. Paris Trade Center. Sept. 27-Oct. 1.

JAPAN. Electronics Production Equipment, Components & Test, Measuring Instruments. Japan's production of all electronics products probably topped $9 billion during 1970, of which the production of industrial electronic products is estimated at $2.5 billion, a 25 percent increase over 1969. Imports from the U.S. of electronics products in 1969 were valued at $274.8 million, a 40 percent rise over 1968. Call William Dawson, 202-967-5682. U.S. Commercial Exhibition, Japan Electronics Show. Osaka. Oct. 1-7.

GERMANY. Industrial Assembly Equipment. The field of assembly fastenings and techniques in Germany is still in the early stages of development. There are numerous ways to cut costs that have not yet been exploited. German manufacturers continue to look to the U.S. for new techniques in the field of special fasteners. American licensing agreements as well as agency representation are readily accepted. An estimate of the demand in Germany for industrial assembly equipment is between 10-15 percent of the demand in the United States. Contact William Gaines, 202-967-4073. Frankfurt Trade Center. Oct. 11-15.

SCANDINAVIA. Design Engineering Components for Machinery & Vehicle Equipment Manufacturers. U.S. exports of controls, components and parts to Scandinavian OEMs (original equipment manufacturers) totaled over $70 million in 1969. Scandinavian OEMs of machinery and vehicles rely heavily on outside suppliers for controls and components, and they import over half of their requirements for this equipment. Sweden imported over $472 million worth of various types of OEM equipment. Call E. C. Walls, 202-967-4256. Stockholm Trade Center, Oct. 11-16.

FRANCE. Refrigeration & Air Conditioning Equipment, Components. France is a growing market for U.S. air conditioning and refrigeration equipment as the rising standard of living spurs the modernization of food processing, storage, transportation, and merchandising methods, and the widening acceptance of residential, commercial and industrial air conditioning techniques. New market research indicates good sales prospects for packaged (unitary) air conditioning systems including split, roof-mounted, central, window and wall air conditioners. Call John Wolf, 202-967-4974. Paris Trade Center. Oct. 18-22.

KOREA. Industrial Machinery. Korea is continuing to forge solid economic gains; its growth rate is about 10 percent annually. Imports are also reaching new levels, with the U.S. supplying more than $630 million in 1970. Korea is seeking to correct a large trade imbalance by modernizing its export industries, through the use of new machinery and equipment, much of which must be imported. Call Robert Levine, 202-967-4705. U.S. Solo Exhibition, Second U.S. Industrial Machinery Exhibition. Seoul. Oct. 18-23.

JAPAN. Avionics & Ground Support Equipment. The aircraft industry in Japan is experiencing a dynamic revival. Imports of aircraft engines, navigation and ground electronics, navigation aids, and aircraft and ground support equipment are very strong, supplying more than half of Japan's demand. The technological level of Japanese-produced engines and certain instrumentation is still below that of U.S. and some foreign producers, and therefore, import demand is expected to remain high. Contact Bob Miller, 202-967-2991. Tokyo Trade Center. Oct. 25-30.

ITALY. Business Automation. Italian businessmen are modernizing their methods and procedures and looking to the U.S. to fill growing needs for advanced business equipment. Market research has identified insurance, banking and service sectors, as well as manufacturing industries and government agencies, as prospective purchasers. Items sought include EDP, reprographic, microfilm and other business efficiency equipment. This exhibition will be held in conjunction with the Eighth International Exhibition of Office Machines and Equipment (SMAU). Call Herb H. Lindstrom, 202-967-3944. Milan Trade Center. Oct. 26-31.

UNITED KINGDOM. Research & Clinical Laboratory Equipment. Market research has identified a number of immediate and growing opportunities for U.S. suppliers to sell equipment to research and clinical laboratories in the United Kingdom. Industrial, university, and public research facilities, hospitals, and clinical laboratories have cited specific items of U.S. equipment that are of interest. Labor-saving, automated equipment, advanced equipment generally, are being sought. Call Joseph F. McNulty, 202-967-4653. London Trade Center. Nov. 1-5.

GERMANY. Electro-Optics/Laser Equipment. Germany, the largest European market for electro-optics/laser equipment, is entering a period of sustained market growth. The 1971-72 period should support an annual electro-optic/laser equipment sales growth of 50 percent. Demand is high for lasers, especially systems with industrial and commercial applications. Call George Kemp, 202-967-3088. Frankfurt Trade Center. Nov. 8-12.

FRANCE. Microcircuit Production Equipment. The French electronics industry is determined to maintain its position as one of the world's leading electronics producers. To achieve that goal the industry receives assistance from the French Government. Current emphasis is being placed on utilizing advanced

electronic production techniques particularly in the area of components and microcircuits. U.S. manufacturers with equipment used to design, produce, process and test microcircuits and related electronics will find good sales prospects for their products. Call John Gleason, 202-967-2434. Paris Trade Center. Nov. 15-19.

ITALY. Advanced Fluid Power Equipment Exhibition/Symposium. Italy's continued drive toward automating its industrial processes and manufactured equipment has created a market for fluid power equipment that is growing at a rate of 15-20 percent annually. Total Italian consumption of fluid power equipment for 1971 is estimated at $63 million. In 1970, Italy's imports rose nearly 21 percent to almost $15 billion. Market research has confirmed good sales opportunities for U.S. suppliers of motors, valves, pumps, servosystems, fluidic devices, and other fluid power equipment. Call 202-967-3968. Milan Trade Center. Nov. 23-27.

GERMANY. EDP Equipment. The Western European market for EDP equipment in 1970 was estimated at $2 billion and the forecast for 1974 is $3.6 billion. Germany, the host country for this trade fair, is the largest single country market in Europe. In 1970, the German EDP market reportedly reached $568 million and is projected to reach $1.15 billion by 1974. The U.S. supplies 50 percent of German EDP equipment imports. Contact Andre Williams, 202-967-2425. U.S. Commercial Exhibition, SYSTEMS 71. Munich. Nov. 30-Dec. 3.

FRANCE. Selected Telecommunications Equipment. The French telecommunications sector offers a growing market for many types of advanced U.S. equipment as the French Government and private industry strive to modernize their communications systems. French consumption is expanding at a rate of 50 percent annually, and U.S. manufacturers hold a vast technological lead over other countries in this field. An important, expanding marketing opportunity exists for American manufacturers of data communications equipment, teletypewriters, airborne and marine navigational aids, radiotelephone equipment, transducers, wide band data recording equipment, mobile FM receiving/transmitting equipment, multiplexing equipment, telecommunications testing and measuring equipment, and telecommunications subassemblies. Call Chuck Whitley, 202-967-4961. Paris Trade Center. Dec. 6-10.

GERMANY. Equipment for Vacuum & Cryogenic Research. American sales of vacuum and cryogenic equipment in Germany's market are largest for the more advanced and sophisticated lines. American industry has been a leader in the application of advanced high and ultra-high vacuum technology in research and in specialized cryogenic lines. Call Andre Williams, 202-967-2425. Frankfurt Trade Center. Dec. 6-10.

UNITED KINGDOM. Environmental Testing Equipment. Environmental testing facilities in the United Kingdom are seeking sophisticated equipment. Market research has identified over 100 items of U.S. equipment with good market potential. Test data acquisition and analysis, electronic controls, and acoustical testing equipment are highlighted. Climatic cycling chambers and rapid-change high and low temperature chambers are also included in the list of products having high sales prospects. Call Gus Duda, 202-967-4461. London Trade Center. Dec. 6-10.

JAPAN. Air & Water Pollution Control. Japan is suffering with the problems of pollution. Her great factory cities, Tokyo, Osaka-Kobe, Nagoya and Fukuoka, like their counterparts in the U.S. and Europe, are daily showered with tons of pollutants. Rivers are choked with industrial wastes. The Japanese Government has acted to put into force laws which will clean up Japan's air and water. Anti-pollution equipment produced in Japan is not being made in great enough quantity or variety to meet all demands, which are predicted reaching $450 million by 1975. A seminar will run concurrently with the show. Call Randy Miller, 202-967-3363. Off-site Tokyo Trade Center Exhibition. Dec. 6-11.

SCANDINAVIA. Metals Processing Equipment. The Scandinavian market for metals processing equipment is estimated at $450 million, of which imports account for 75 percent. U.S. suppliers provide $35 million of these imports, which are increasing substantially in all four Nordic countries. Sweden alone represents a $250 million market, to which U.S. firms supplied $20 million in equipment and $52 million in metals and minerals in 1969. Investment in the Swedish iron and steel industries is expected to reach $125 million annually between 1971 and 1975. Programs currently under way or planned call for increased outlays for advanced production equipment, process controls, test and measuring instruments, powder metals and related equipment, and special metals and super alloys. Call A. J. Beiring, 202-967-3713. Stockholm Trade Center. Jan. 24-29, 1972.

MEXICO. Industrial Process and Analytical Instrumentation. The Mexican market for this type instrumentation will total about $40 million annually by the end of 1971. Imports are expected to account for $35 million of the country's needs with the U.S. share of the market estimated at $24 million. The Mexican Government encourages manufactured goods exports, and is urging industrialists to modernize production and quality control testing facilities; this has increased the demand for advanced instruments. This exhibition offers U.S. suppliers an excellent opportunity to introduce or expand sales in a growing market where new U.S. Trade Center facilities have recently been inaugurated. Call Jim Blow, 202-967-4565. Mexico City Trade Center. Feb. 7-11, 1972.

ITALY. Data Communications Equipment. This offers one of the best opportunities for U.S. firms to increase sales in the Italian EDP market, which is forecast at $160 million by the end of 1972. U.S. firms currently dominate this market, which is growing at a rate near 20 percent per year. Market research has identified good sales opportunities for U.S. suppliers of terminals and display systems, data transmission systems, data entry systems and converters, modems, and other similar or related equipment. Call 202-967-3944 or write U.S. Department of Commerce, BIC-944, Washington, D.C. 20230. Milan Trade Center. Feb. 15-19, 1972.

Space Fully Booked

The following exhibitions and trade missions, in which all exhibit space has been reserved, are still open for visits by interested industry representatives. U.S. firms with sales representatives in these market areas could ask them to investigate the shows.

Plastics & Plastic Machinery, U.S. Commercial Exhibition, KUNSTSTOFFE '71, Duesseldorf, Sept. 16-23; Industrial Automation & Instrumentation Equipment, U.S. Commercial Exhibition, INTERKAMA '71, Duesseldorf, Oct. 14-20; Printing & Graphic Arts Equipment, Business Equipment & Computers, Machine Tools, Construction Machinery, U.S. Solo Exhibition, Sao Paulo, Nov. 16-23; Packaging Machinery, Mexico City Trade Center, Nov. 29-Dec. 3.

Sales opportunities in three U.S. commercial exhibitions, trade fairs and solo exhibitions and 18 shows at the nine U.S. Trade Centers are being offered to present and potential U.S. exporters between now and Feb. 15, 1972.

Each Trade Center exhibition is limited to one particular line of products and centers are located in Bangkok, London, Milan, Mexico City, Frankfurt, Stockholm, Sydney, Tokyo and Paris. For further information on the Trade Center shows described or for more facts on U.S. exhibitions, **write:** *Commercial Exhibits Program, BIC-932, U.S. Department of Commerce, Washington, D.C. 20230.*

Trade missions are groups of U.S. businessmen organized to travel abroad promoting the export of U.S. goods and services made by their particular industry. **Write:** *Trade Missions Div., BIC-926, U.S. Department of Commerce, Washington, D.C. 20230.*

A product showroom where U.S. goods or literature can be displayed is also maintained at the American Embassy in Ethiopia. **Write:** *Edward W. M. Bryant, Commercial Attache, American Embassy, Crown Prince Asfaw Wossen St., Addis Ababa.*

Licensing, Investment Abroad

3536—YUGOSLAVIA—Major producer of such heavy industrial equipment as overhead traveling cranes, conveyers, hoists and bridge sections proposes joint venture arrangement to produce **equipment for rail and port handling of containerized freight.** Firm seeks technical know-how in container handling field and wants to expand and equip its facilities to meet needs of the growth in containerized freight. Contract has already been awarded firm for design and construction of container-handling facility at regional rail center and similar bid under preparation for like facility at a port. Mr. Slavko Belina, General Director, c/o METALNA, Maribor 62000, Yugoslavia. WTD. P-71372

3440—ISRAEL—Two established producers of large steel structures and sheet metal products seek know-how or comparable agreement in field of **pre-engineered and prefabricated structures.** Both are subsidiaries of Israel's largest manufacturer, Koor Industries, Ltd. Mr. Joel Brenner, Hamat Ltd., Metal Works, Industrial Center Holon (Azor), P.O. Box 1944, Tel Aviv, Israel. WTD. P-71371

3253—SPAIN—Firm, established in 1964, seeks U.S. capital of approximately $700,000 to resume **ceramic tile operation.** Company wishes to have 3,000-4,000 square meters daily output. Plant equipped with modern machinery and equipment. Type of arrangement with U.S. partner to be negotiated. Mr. Antonio BARTRINA Castejon, Plaza de Cuba 3, Sevilla, Spain. WTD. P-71370

3559—NETHERLANDS—License to manufacture **machinery for the production of building materials.** Firm currently produces machines for making wood-cement composition board. Employs 20; has fully-equipped metalworking facility. Mr. J. Tichelaar, Elten Engineering, 172 Baron van Nagellstraat, P.O. Box 15, Barneveld, The Netherlands. WTD. P-71369

2899, 3589—AUSTRIA—Licenses to manufacture and distribute **water treatment and purification equipment and chemicals.** Well-established manufacturer of pharmaceuticals, and agricultural, household and medicinal chemicals. Annual sales about $3 million. Employs 100. Dr. Gertraud Hurka (Mrs.), Arcana K.G. Dr. G. Hurka, Hoesslgasse 2, P.O. Box 43, A-9802 Spittal/Drau, Austria. WTD. P-71368

7011, 7392—SURINAM—Recently established firm engaged in **management planning, manpower management, preparation of feasibility studies, and tourism** offers 20% equity participation to potential U.S. partner. Wants to increase capital to approximately $140,000 to expand scope of operation. Mr. Deryck Ferrier, Surinam Resources Exploitation and Management Corp., P.O. Box 954, Paramaribo, Surinam. WTD. P-71367

3494—ARGENTINA—License to manufacture **solenoid valves.** Firm produces and distributes lever controls and accessories, turbine pumps and valves. Pelton S.R.L., Moliere 768, Buenos Aires, Argentina. WTD. P-71366

AUSTRIA—Government seeks American **investments in new industries** in the provinces of Styria and Burgenland. Industries desired which can operate in both the Austrian and Central European markets. Plant **sites and required facilities offered free to American investors.** Financing available for up to 70% of investment at interest rates between 5% and 8%. Electric power rates will be negotiated. Further information may be obtained from the Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230.

3640, 3670—FRANCE—Licenses to manufacture **electrical and electronic components, powdered metal parts and ceramic and graphite base products.** Currently makes electrical terminals; employs about 90. Mr. Jean Guyot, President and General Manager, SAMEC (Societe d'Applications Electro-Mecaniques de Courville), route de Billancelles, 28—Courville-sur-Eure, France. WTD. P-71364 Brochure describing the firm's product line (in French) available on loan from Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230.

3561—GERMANY—Manufacturing rights for **pumps for sewage systems.** Interests include submersible pumps for both rotary and stationary operation, vertical and horizontal rotary pumps and self priming pumps. Firm is large producer of pipes, fittings and pumps for water systems, employs about 930. Guss- und Armaturwerk Kaiserslautern, 6750 Kaiserslautern, Hohenecker Str. 5, Germany. WTD. P-71363

3569—AUSTRIA—License to manufacture equipment for the **environmental control** industry. Special emphasis on machinery designed for **air purification and waste removal.** Firm is Austria's largest steel company; has marketing contacts throughout Europe. VOeST, Abteilung Verkauf-Finalindustrie, c/o Direktor Dr. Ostermann, P.O. Box 2, A-4010 Linz, Austria. WTD. P-71362

3679—GERMANY—Producer and wholesaler of remote controls seeks licenses to manufacture **remote controls for television sets and automatic door openers.** Torantriebe und Funkfernsteuerung Theodor Dueppe, 41 Friederikenstr., Postfach 377, 43 Essen, Germany. WTD. P-71361

3423, 3548—GERMANY—Manufacturer seeks licenses to produce **torque wrenches and automobile service tools.** Company presently manufactures torque wrenches, hammers, pliers and motor car hand tools. Established in 1919 and employs 110. Sales volume approximately $3 million. Carl Walter, Schraubwerkzeugfabrik KG, 82 Hahnerbergstr., 56 Wuppertal-Hahnerberg, Germany. WTD. P-71360

3569—SINGAPORE—The Port of Singapore Authority is considering the introduction of the **shrinkwrap packaging method on cargo handling.** For a study on the feasibility of establishing a shrinkwrapping installation, write: The Chief Engineer, Port of Singapore Authority, Tanjong Pagar, Singapore 2, Republic of Singapore. P-71359

3450—GERMANY—Manufacturer, distributor and exporter of **metal fasteners, inserts, plastic screws and quick release fasteners** seeks licenses to manufacture similar products to expand present line, including several items under U.S. licenses. Facilities include workshops equipped with modern machinery, warehouse and sales office. Employs 350 and distributes through 35 sales agents throughout Germany and Europe. 1970 sales volume approximately $7 million. Boellhoff and Co., 1-4 Archimedesstr., 4812 Brackwede, Germany. WTD. P-71358

Licensing In U.S.

For additional information on opportunities to manufacture foreign firm's products in the U.S., write Commerce's Office of International Investment, BIC-874, Bureau of International Commerce, Department of Commerce, Washington, D.C. 20230, telephone Area Code 202-967-2248, referring to the appropriate FILE NUMBER assigned each opportunity listed below.

2211—SWITZERLAND—A Swiss manufacturer of **special plastic nets** used by carpet manufacturers to replace jute and similar products, as well as by textile firms and producers of fiber-based nonwoven fabrics, wishes to form a joint venture with an American firm. **File 2060**

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Office of International Investment, U.S. Department of Commerce, BIC-878, Washington, D.C. 20230. "P" numbers should be used when responding to specific proposals.

For additional information on opportunities to manufacture foreign firm's products in the U.S., described under "Licensing In U.S.", write Commerce's Office of International Investment, BIC-874, or call 202-967-2248 referring to the File Number assigned each opportunity.

WTD indicates that a World Trade Directory Report containing financial and background information on the foreign firm is available for $2 from the Department of Commerce, BIC-924, Washington, D.C. 20230, or from any Commerce Field Office.

2821—ENGLAND—A prominent British company is interested in finding a U.S. company to manufacture their products under license for the American market or to participate in a joint venture. Their major manufacturing efforts are in producing **plastic plumbing and building products** for waste, rainwater, soil and overflow applications. **File 2061**

3433—ENGLAND—A manufacturer of a **filtered warm air central heating unit** electronically controlled to cut heating costs is looking for a large U.S. company to manufacture the unit under license. The basic U.S. patent has been approved. **File 2062**

3069—SWITZERLAND—Company offers for licensing a new process for the manufacture of **fabric-reinforced rubber and plastic hose.** The process is for hose of up to one inch inside diameter and up to 30 kp/cm2 bursting pressure, such as automobile hose, garden and gas hose. **File 2063**

3492—SWITZERLAND — A progressive Swiss firm offers interested U.S. manufacturers and bank builders manufacturing licenses for **doorsafes, vaults, cashier desks** and bank counter installations that are claimed to be fire and burglar proof. **File 2064**

3541 — NETHERLANDS — A reputable foundry and engineering firm producing high quality gears and gearboxes wants a manufacturing license arrangement with a U.S. firm to produce **planetary gears, variable ratio epicycliec gears, optical telescopes, and radio telescopes. File 2065**

3551—ENGLAND — A British company wishes to grant a license to a U.S. manufacturer for making equipment that would utilize their **dehydration process.** Food manufacturers might be particularly interested as the process allows water removal to proceed while retaining the nutritional and flavor components. **File 2066**

1611—ENGLAND—An English manufacturer of **construction equipment;** lift and force diaphragm **sludge pumps;** material, concrete and passage **elevators and conveyors** for transporting on job site or casting yard is interested in examining licensing opportunities with an American company for part manufacturing and/or local assembling. **File 2067**

1799—ENGLAND—An old, well established manufacturer of **multi-story framework systems,** single-story long-span framework systems, and a hollow-beam flooring system for the construction industry wants to make a manufacturing/licensing arrangement with a U.S. company. Licensing arrangements are already in force in Ireland, South Africa and Jamaica. **File 2068**

2842—SWITZERLAND—A Swiss manufacturer of **special cleaning products** for household use and application in restaurants, hotels, and hospitals wishes to have its products made in the United States under a licensing arrangement with a U.S. partner. All products are made and packaged in the form of sprays, pastes and creams. **File 2069**

3494—SWITZERLAND—A small Swiss firm offers manufacturing rights to U.S. companies to produce a new **hydraulic ball valve element.** The valve reportedly has a very high switching time even at high pressure if required, i.e., 0.1 thousandth of a second compared to 1 thousandth of a second on standard valves. The valve remains perfectly tight at high flow or pressure even at extremely low switching time. An informal survey revealed an estimated U.S. market of substantial size. **File 2070**

3551 — SWITZERLAND — A reputable Swiss firm offers for licensing the manufacturing of potato chippers, frying pans, automatic vegetable peeling machines, and other **equipment for use in the home and institutional kitchens.** While small, the firm already has a subsidiary operating in West Germany. **File 2071**

3714—SWITZERLAND—A Swiss firm presently supplying important European customers with their **transmission elements** is seeking a U.S. counterpart willing to manufacture their products under license. The products are stretch-proof, wear resistant synthetic ball or bar cords which transmit manual or motor-driven movements for application in instruments, apparatus or small machinery. Reportedly, the system ensures transmission of higher torques and power without slippage and back-lash. **File 2072**

3821—WEST GERMANY—A West German firm offers a licensing arrangement to an American firm interested in making **axial piston units** with constant or variable liquid capacities, regulating and controlling devices, hydraulic drives and associated valves. These piston units are manufactured in three basic types and seven sizes, and offer optimum adaptation to many different applications. **File 2073**

3561—SWITZERLAND—A medium-sized Swiss company manufacturing **special pumps and magnetic equipment** offers a licensing arrangement for: a) high pressure internal gear pumps for oil hydraulics. It is claimed the suction capabilities have been considerably improved over conventional models; b) magnetic lifting equipment for use in steel works, foundries, scrap yards, etc. **File 1840-R**

3999—SWITZERLAND —Manufacturing rights for a **folding shade** to be made of paper or plastic materials is offered. Modern pattern designs are available so the shades may be used as attractive advertising means or as garden and camping parasols. Reportedly, the costs of this patented sunshade is about one-third the cost of usual models. The same invention is also used in a fan-shaped folding Christmas tree stand protecting the floor and not requiring further treatment of the tree stem. Utilization of this patent began in June 1970. **File 1956-R**

World Bank, IDA-Financed Projects Create Sales In Developing Nations

The International Bank for Reconstruction and Development (World Bank) and the International Development Association (IDA) are considering financing the following major international projects. This listing, compiled by the Business Opportunities Staff of the Office of Business Services, should be of interest to U.S. consulting and engineering firms as well as suppliers of equipment and machinery. U.S. firms should consult the Future Construction Abroad notices published in each issue of *Commerce Today* for other foreign project developments. Foreign government tenders which result from these projects are often published in both *Commerce Business Daily* and *Commerce Today.*

As information becomes available on significant changes in these projects it will be published in subsequent issues. Each entry includes: the country receiving the proposed loan and, where appropriate, the agency charged with completing the project; the amount in millions of dollars, and (source) of the loan; the project being financed; the stage of bank processing; and any procurement information obtained by the Business Opportunities Staff.

EASTERN AFRICA

BOTSWANA (Water Utilities Corp. and Botswana Power Corp.): $32 million (World Bank); **infrastructure for Shashe mining** project; negotiations underway.

BOTSWANA: $2 million (IDA); **Gaborone-Lobatse Road;** appraisal report being prepared.

BURUNDI: Amount of IDA loan to be determined; **road construction and maintenance;** awaiting completion of detailed engineering and maintenance study by consultants.

BURUNDI: Amount of IDA **power loan** to be determined. Feasibility study being prepared.

CONGO (KINSHASA): Negotiations for $7 million from IDA for **river transport** are underway.

CONGO (KINSHASA): Amount of possible IDA **highway transport** loan to be determined; appraisal report being made.

CONGO (KINSHASA): Amount of IDA **education** loan to be determined, pending completion of appraisal report.

ETHIOPIA: $9.5 million IDA loan for the second stage of an **educational** project was signed on May 6.

ETHIOPA (Addis Ababa Water and Sewerage Authority): $9.5 million World Bank loan for the Addis Ababa **water and sewerage system.**

ETHIOPIA (Imperial Highway Auth.): Feasibility study being prepared for fifth stage of a **roadbuilding** project. Amount of World Bank loan to be determined.

KENYA (Tana River Development Co.): A $23 million World Bank loan for the **Kamburu hydroelectric power** project is being negotiated; bids have been received for civil works.

KENYA: The amount of a proposed World Bank loan for **airport development** has not yet been determined; further studies of the project are in progress.

KENYA: An appraisal report is being prepared for the fourth stage of a **highway project** for which a $25 million World Bank/IDA loan has been proposed.

LESOTHO: A $3 million IDA loan has been proposed for the **Malibamatso River diversion** project, for which an appraisal report of the engineering aspects is being prepared.

RWANDA: An IDA **road maintenance** loan for an as yet undetermined amount is being considered; a preparation mission visited the country in May.

SOMALIA (Somalia Port Authority):

A $7.5 million IDA loan for the **Port of Mogadiscio** is awaiting current financial information before scheduling appraisal.

SOMALIA: The amount of a proposed IDA loan for the **Hargeisa-Barbera highway** has not been determined; an appraisal report is being prepared; invitations to prequalify for bidding are being issued.

SUDAN (Mechanized Farming Corp.): The amount of a joint Bank/IDA loan for the second stage of a **mechanized farming** project has not been determined; preparation of the project is being completed by the Government.

TANZANIA: Negotiations are under way for a $5.5 million IDA loan for the third stage of a **highway project**; retroactive financing is to be recommended.

UGANDA: Negotiations are in process for a $7.3 million IDA loan on the second phase of an **educational project**.

ZAMBIA: An appraisal mission is in the field studying a proposed **telecommunications** project involving a $10 million World Bank loan.

WESTERN AFRICA

CAMEROON: A feasibility study is being prepared on the second phase of a **port project**; the amount of a proposed IDA loan has not been determined.

CENTRAL AFRICAN REP.: The amount of a proposed **education** loan has not been determined; an appraisal mission is in the field or scheduled.

CENTRAL AFRICAN REP. (Office des Postes et Telecommunications): An appraisal mission is in the field studying a **telecommunications** project; amount of the proposed IDA loan has not been determined.

CHAD: The amount of a proposed IDA **telecommunications** loan has yet to be determined, awaiting the findings of a reconnaissance mission.

CONGO (BRAZZAVILLE): An appraisal mission is in the field studying a **railway engineering and rolling stock** project; amount of proposed IDA loan to be determined.

CONGO (BRAZZAVILLE) — (Regie Nationale des Travaux Publics): An appraisal report is being prepared on a **road maintenance** project; amount of proposed IDA loan to be determined.

DAHOMEY: Feasibility study is being prepared on a **road construction** project; amount of proposed IDA loan to be determined.

EQUATORIAL GUINEA: An appraisal mission is in the field studying a **road maintenance** project; amount of proposed loan to be determined.

GABON: A **railway** project is awaiting further discussions between the Government and logging companies; amount of proposed IDA loan to be determined.

GHANA: A proposed IDA **road rehabilitation** and maintenance project, to be financed by a loan for an undetermined amount, is awaiting a project preparation report.

GHANA (Electricity Corp. of Ghana): A $7.1 million IDA loan for the second stage of a **power distribution** project is awaiting Government confirmation of results of negotiations (parallel financing with Germany); bids invited before appraisal—major contracts awarded.

GHANA: An appraisal mission is in the field or scheduled to study a **sugar development** project; amount of proposed IDA loan not yet determined.

GHANA: Appraisal team in the field studying an **oil palm** project; amount of proposed IDA loan not yet determined.

GHANA (Water and Sewerage Corp.): An appraisal mission is in the field studying the second phase of a **water supply** scheme; amount of requested IDA loan not yet determined.

GHANA: Appraisal mission is in the field to study a **telecommunications** project; amount of proposed World Bank loan not yet determined.

IVORY COAST: Negotiations are in progress for a $20.5 million World Bank loan to help finance the second stage of a **road construction** project.

IVORY COAST (Palm Ivoire): Negotiations are substantially completed for a $7 million World Bank loan for **coconut and palm oil** development and an oil mill; tenders are requested for land clearing, approval granted for oil mill extraction equipment.

IVORY COAST: A feasibility study is being prepared on an **urban transport and infrastructure** project; amount of requested World Bank loan to be determined.

LIBERIA: Project preparation is under way on a **road engineering and maintenance** scheme financed by $2.5 million loan from either IDA or World Bank.

MALI (Office des Postes et Telecommunications): A feasibility study is being prepared on a **telecommunications** project; amount of desired IDA loan not yet determined.

MAURITANIA: A feasibility study for a **port extension** scheme is under preparation; amount of requested loan from IDA or World Bank not yet determined.

NIGER: A proposed IDA **education** loan for an undetermined amount is awaiting preparation of the project.

NIGERIA: Negotiations are under way on a $15.5 million World Bank loan for federal and state **road projects**.

NIGERIA: A requested $35 million World Bank loan for expansion of **power generation**, transmission and generation facilities is awaiting a consultants' report on the unification of the power sector.

SENEGAL (Energie Electrique de L'Ouest Africain): An appraisal report is being prepared on a **power loan**, the amount and source of which has not yet been determined.

SENEGAL: A feasibility report is being prepared on a **sewerage and drainage** project; amount and source of the loan have not been determined.

SENEGAL: An **urban development** loan is awaiting the report being prepared by project preparation mission; amount and source of loan to be decided.

TOGO: Detailed engineering is in progress on a **road construction** project; amount of IDA loan not yet determined.

TOGO (Ciments de l'Afrique de L'Ouest): A World Bank loan for a **cement factory** is awaiting results of additional chemical tests; preliminary proposals from manufacturers for turnkey clinker plant have been presented to promoters, but formal bidding will follow Bank guidelines.

UPPER VOLTA: Feasibility study being prepared on **feeder road** project; amount of IDA loan to be determined.

N. AFRICA, EUROPE, MIDDLE EAST

CYPRUS: Processing of $2 million World Bank loan for **roads** awaiting completion of detailed engineering and highway planning study; retroactive financing for consultants.

GREECE: A **road maintenance** study is being prepared by consultants; $4.5 million World Bank loan.

ICELAND (National Power Co.): Feasibility study being prepared on the third stage of the national **power project**; $6 million World Bank loan.

IRAQ: Recent discussions with the Government concerned a $22 million World Bank loan for a **microwave communications** project; bids to be issued shortly.

IRAQ: A feasibility study is being prepared on a **grain storage** project; $10 million World Bank loan.

IRELAND (Electricity Supply Board): Appraisal report being prepared on the third stage of a **thermal power** project; $15 million World Bank loan; bids received for boiler and turbo equipment for second power project included option for possible purchase of identical equipment for this project.

ISRAEL: Negotiations are in progress on a $30 million World Bank **highway construction** loan; contractors pre-qualified for first group of bids with agreement of Bank.

JORDAN (Jordan Electric Auth.): Appraisal mission is studying a **power generation** project; amount of IDA loan to be determined.

JORDAN: Negotiations are under way on a $6 million IDA loan for the **Amman-Zarqa highway**; bids opened in April.

LEBANON: Processing of loan for **expressway construction** awaiting Government's proposals and related financing plan; amount of World Bank loan to be determined; retroactive financing for consultants' services being considered.

MOROCCO: Feasibility study being prepared on **Rabat/Casablanca water supply** project; $20 million loan, source uncertain; retroactive financing for consulting services and initial dam construction being considered—contract for dam awarded.

MOROCCO (Office Nationale de l'Electricite): A **power transmission** project is in preparation; size of World Bank loan has not been determined.

MOROCCO (Credit Immobilier et Hotelier): Appraisal report being prepared on second stage of **tourism program (hotel projects)**; $15 million World Bank loan.

SPAIN (Red Nacional de los Ferrocarriles Espanoles-Renfe): Negotiations are under way on a $90 million World Bank loan to finance the third stage of a **railway improvement** program.

SYRIA (Establissement Public d'Electricite): Feasibility report being prepared on **power generation and transmission** project; amount of World Bank loan to be determined.

SYRIA: Appraisal mission is in the field studying the proposed second phase of a **highway** program; amount of IDA loan to be determined.

TUNISIA: Negotiations substantially completed on a $24 million World Bank **road construction** loan; prequalification of contractors under way.

TURKEY: Appraisal team is in the field and a feasibility study is being prepared on an **Istanbul urban development** project; $15 million IDA loan.

TURKEY (Turkish Electricity Auth.): Negotiations are under way on a $24 million World Bank **power transmission** loan; bids asked for cable and switch gear.

TURKEY (Cukurova Elektrik A.S.): An appraisal report on the fourth phase

of the **Cukurova hydroelectric-irrigation** project is being considered; $7 million World Bank loan; major contracts awarded under previous loan.

TURKEY: Feasibility study being prepared on the Ceyhan Aslantas **irrigation and power multi-purpose project**; amount of World Bank loan to be determined.

TURKEY (Eregli Iron and Steel Works): Appraisal report being prepared on **steel mill expansion**; amount of World Bank loan to be determined.

TURKEY (Turkish Railways): An appraisal mission is in the field studying a proposed **railway** project; amount of World Bank loan to be determined.

UNITED ARAB REPUBLIC (Egyptian Railway Board): Negotiations are under way for a $30 million IDA **railway improvement** loan; bids are being invited for signaling and telecommunications equipment.

YEMEN ARAB REPUBLIC: Appraisal mission is in the field investigating the nation's **roads**; amount of IDA road loan to be determined.

YEMEN, PEOPLE'S DEMOCRATIC REPUBLIC OF: A $1.6 million IDA road credit was signed in April.

YUGOSLAVIA (Babin Kuk Hotel Tourist Center, Dubrovnik): Negotiations are under way for a $20 million World Bank loan to boost **tourism**.

YUGOSLAVIA (Hotel Bernardin, Piran): Negotiations are under way for a $10 million World Bank **tourism** loan.

YUGOSLAVIA (Ibar-Lepenac Enterprise): Negotiations are under way on a $45 million World Bank loan to the **Ibar multi-purpose water supply** project.

YUGOSLAVIA (Republics of Macedonia and Slovenia; Autonomous Province of Kosovo): Negotiations are under way for a $35 million World Bank loan to assist the fifth stage of a highway program.

YUGOSLAVIA: Processing of a World Bank loan to aid **Jaz tourism** is awaiting revision of the project; amount of loan not yet determined.

YUGOSLAVIA: Appraisal mission is in the field studying a proposed **power transmission** project; $35 million World Bank loan.

YUGOSLAVIA: Processing of loan for **Dubrovnik infrastructure** awaiting submission of engineering plans; amount of World Bank loan to be determined.

SOUTH ASIA

AFGHANISTAN (Afghan Air Auth.): Appraisal report being prepared on **Kabul Airport improvement**; $3 million IDA loan.

INDIA (State Electricity Boards): A $75 million IDA **power transmission** loan was approved by the executive directors in April.

INDIA (Fertilizers and Chemicals Travancore, Ltd.): Negotiations are under way for a $20 million IDA loan to help **expand the Cochin fertilizer plant.**

INDIA (State Electricity Boards): A $60 million IDA loan for the third stage of a **power transmission** program is awaiting additional information from the Government.

INDIA (Indian Railways): An appraisal report is being prepared on the eleventh stage of the national **railway improvement** program; $50 million IDA loan.

INDIA: A $78 million IDA loan for the fourth stage of a **telecommunications** project was approved by the executive directors in April.

INDIA (Bombay Municipal Corp.): Feasibility study being prepared on a **Bombay water supply** project; $25-$30 million IDA loan; retroactive financing of consultants' services.

INDIA (Indian Shipping Companies): Appraisal mission studying a proposed $80 million loan for **oil tankers.**

IRAN (National Iranian Oil Co.): Appraisal report being prepared for **oil pipeline** project; $35 million World Bank loan.

IRAN (Khusestan Water and Power Auth.): A $20 million World Bank loan for the second phase of the **Dez Irrigation scheme** is awaiting further project information.

IRAN (ministry of Water and Power): Second stage of a **power transmission** project is being prepared; $30 million World Bank loan.

NEPAL: Preparation of a **tourism** project is underway; $2 million IDA loan.

PAKISTAN (Karachi Electric Supply Corp.): Negotiations under way for $10.5 million loan from World Bank or IDA loan for **Karachi power transmission and distribution**; retroactive financing for consultants.

PAKISTAN (Karachi Port Trust): Processing of $8 million IDA loan for **Karachi port construction** awaiting completion of detailed engineering.

EAST ASIA AND PACIFIC

AUSTRALIA (PAPUA & NEW GUINEA Electricity Supply Commission): A $23.2 million World Bank loan for the **Upper Ramu hydroelectric project** has been approved by the executive directors.

AUSTRALIA (PAPUA & NEW GUINEA Harbors Board): Pre-appraisal mission preparing report on **port project**; amount of World Bank loan to be determined.

AUSTRALIA (PAPUA & NEW GUINEA): Loan request for second stage of **telecommunications** project being considered by Bank; amount to be determined.

CHINA (Taiwan Railway Admin.): Negotiations under way for a $15 million World Bank loan for the fourth stage of a **railway** project.

CHINA (Directorate General of Telecommunications): A $15 million World Bank loan for the second stage of a **telecommunications** scheme is awaiting project application.

CHINA: Feasibility study being prepared on a **Taipei sewerage** project; $20 million World Bank loan.

CHINA (China Development Corp.): An appraisal mission is in the field studying an **agricultural mechanization** project; $20 million World Bank loan.

CHINA: Project preparation for a **highway development** scheme is in progress; $34 million World Bank loan; the Government is negotiating with consultants for detailed engineering.

FIJI: Negotiations are under way for the **Suva-Nandi highway** project; $11.8 million World Bank loan; retroactive financing of consultants' engineering services.

INDONESIA: Negotiations are under way for a $33 million World Bank loan to assist the second stage of a **highway project.**

INDONESIA: Consultants' report on **Bali tourism** is being finalized; amount of IDA loan to be determined.

KOREA: Negotiations under way on $40 million World Bank **highway** loan; contractors invited to pre-qualify for bidding.

KOREA (Korea National Railroads): Government preparing the fourth stage of a **railway** project; $30 million World Bank loan.

MALAYSIA: Negotiations under way on $18.7 million loan for second stage of **telecommunications** project.

MALAYSIA (Sabah Ports Authority): Negotiations have been completed on a $16.1 million World Bank loan for **Sabah's ports**; retroactive financing for detailed engineering.

MALAYSIA: Processing of World Bank loan for **federal highways** awaiting completion of supplementary economic studies and detailed engineering; amount to be determined.

MALAYSIA (Malayan Railways): An appraisal mission is in the field studying a proposed **railway project**; amount of World Bank loan to be determined.

PHILIPPINES (National Power Corp.): An appraisal mission is in the field studying a Bataan **thermal power** project; $30 million World Bank loan.

SINGAPORE (Public Utilities Board): Second stage of **power distribution** project being prepared by PUB; amount of World Bank loan to be determined.

SINGAPORE (Port of Singapore Auth.): An appraisal team is studying the second phase of a **port development** project; amount of World Bank loan to be determined.

THAILAND: Appraisal report being prepared on the fifth stage of a **highway** program; $25 million World Bank loan; contractors invited to pre-qualify for bidding on part of project.

THAILAND (Telephone organization of Thailand): Appraisal mission is in the field studying a **telecommunications** project; amount of World Bank loan to be determined.

THAILAND (Electricity Generating Authority of Thailand): Appraisal team studying the **South Bangkok thermal power** project (Unit 4); $25 million World Bank loan; options to purchase equipment were obtained under international bidding in conjunction with equipment financed under loan 655-TH.

WESTERN HEMISPHERE

ARGENTINA (Vialidad Nacional): A $67.5 million World Bank loan for the third stage of a **road** project was signed in May.

ARGENTINA (Ferrocarriles Argentina): An $84 million World Bank **railway** loan was signed in April.

ARGENTINA (Vialidad Nacional): Feasibility study being prepared on a **road** project which is scheduled to receive a $50 million World Bank loan.

BRAZIL: Negotiations are under way on a World Bank loan for the **Port of Santos**; amount of loan still to be determined; retroactive financing for consultants.

BRAZIL: Appraisal mission in the field to study the third stage of a **highway** program; amount of World Bank loan to be determined.

BRAZIL: Processing of **agricultural storage** project loan awaiting report of project preparation mission; amount of

World Bank loan to be determined.

BRAZIL: Feasibility report being prepared on a **Port of Recife** project; amount of World Bank loan to be determined.

BRAZIL: Negotiations are under way on a $46 million World Bank loan for the first stage of a **railway** project; retroactive financing for consultants.

BRAZIL (Mineracoes Brasileiras Reunidas): Negotiations are under way on a $50 million World Bank loan for **iron ore mining and transportation.**

BRAZIL (Superintendencia de Agua e Esgotas da Capital and Companhia Metropolitana de Saneamento de Sao Paulo): World Bank loans totaling $37 million for **Sao Paulo water supply and pollution control** were approved by the executive directors in May.

BRAZIL (Centrais Electricas de Minas Gerais): Processing of World Bank loan for **Sao Simao hydropower** project awaiting completion of further studies by borrower and consultants; amount of loan to be determined.

BRAZIL (Sao Paulo State): World Bank loan for **Sao Paulo beltway** awaiting completion of detailed engineering study; amount of loan to be determined.

BRAZIL (Companhia Siderurgica Nacional): Appraisal mission is studying a proposed **steel manufacturing** venture; amount of World Bank loan to be determined.

BRAZIL (Companhia Siderurgica Paulista): Amount of World Bank loan for **steel manufacturing** project to be determined.

BRAZIL (Usinas Siderurgicas de Minas Gerais): Amount of World Bank loan for **steel manufacturing** project to be determined.

COLOMBIA (Empresa Nacional de Telecommunicaciones): A $15 million World Bank **telecommunications** loan was approved by the executive directors in May.

COLOMBIA (Empresa Minicipales de Palmira): Negotiations are under way on a $2 million World Bank loan for **Palmira water supply and sewerage.**

COLOMBIA (Ferrocarriles Naciones de Colombia): An appraisal mission is in the field studying the proposed sixth stage of the national **railway** program; $20 million World Bank loan.

COLOMBIA (Empresa de Acueducto y Alcantarillado de Bogota): Negotiations are under way on an $88 million World Bank loan for the second stage of a **Bogota water supply** project; advertisement of $30 million tunnel contract issued.

COSTA RICA: Appraisal mission in the field studying the proposed third phase of a **telecommunications** program; World Bank loan for $16 million.

COSTA RICA (Instituto Costarricense de Electricidad): A World Bank appraisal team is in the field evaluating the proposed fourth stage of a **power program**; $5 million World Bank loan.

ECUADOR: Appraisal report being prepared on **Nayon hydropower** project; $6 million IDA loan; contract for civil works awarded after bidding; contract for nine-megawatt diesel units has been awarded.

ECUADOR: Feasibility study being prepared on proposed **airport** project; $10 million World Bank loan.

EL SALVADOR (Administracion Nacional de Telecommunications): Second stage of **telecommunications** project in abeyance pending Government decision on possible supplier financing for first stage; $5 million World Bank loan; invitation to bid on cable (3.5 million) being prepared.

EL SALVADOR (Instituto Nacional de Electrificacion): Feasibility study being prepared on **power generation, transmission and distribution** project; amount of World Bank loan to be determined.

EL SALVADOR (Empresa Guatemalteca de Telecommunicaciones): Appraisal report being prepared on **telecommunications** expansion program; amount of World Bank loan to be determined; invitation to bid on microwave equipment and mobile exchange being prepared.

GUYANA (Guyana Electricity Corp.): **Power program** loan awaiting completion of project preparation; amount of World Bank loan to be determined.

GUYANA: Appraisal mission in the field studying a **road project**; $5 million IDA loan.

HONDURAS: Arrangements for detailed engineering of **Tegucigalpa-Talanga highway** under review; World Bank and IDA each listed for $3.5 million loans.

HONDURAS (Empresa Nacional Portuaria): A $6 million **port improvement** loan is being negotiated with the World Bank.

HONDURAS (Empresa Nacional de Energia Electrica): An appraisal team is in the field evaluating a proposed **power expansion** program; $7 million World Bank loan.

MEXICO (Banco de Mexico): An appraisal mission is studying **tourism prospects on the Pacific Coast**; amount of World Bank loan to be determined.

MEXICO (Comision Federal de Electricidad): Appraisal mission investigating the proposed eleventh stage of a **power program**; amount of World Bank loan to be determined.

MEXICO: **Port expansion** project in preparation; amount of World Bank loan to be determined.

NICARAGUA (Empresa Aguadora de Managua): An appraisal team is studying the proposed second stage of a **Managua water supply** project; $5.5 million World Bank loan.

PANAMA (Direccion de Aeronautica Civil): Appraisal report being prepared on **Tocumen Airport** project; $18 million World Bank loan; retroactive financing for consultants' services.

PARAGUAY: An appraisal mission is in the field studying a **tourism** project; $3 million IDA loan.

PERU (Empresas Electricas Asociadas): Feasibility study being prepared on **power distribution** project; $15 million World Bank loan.

TRINIDAD & TOBAGO (Port Authority): Feasibility report being prepared on **Port-of-Spain project**; $5 million World Bank loan.

VENEZUELA (C.A. Nacional Telefonos de Venezuela): Negotiation under way for $35 million World Bank **telecommunications** loan; retroactive financing for consultants' services.

VENEZUELA: Scope of **Maiquetia Airport** project being revised; amount of World Bank loan to be determined; pre-qualification of bidders in progress.

VENEZUELA: Processing of loan for **Caracas Metro** awaiting economic and financial studies; amount of World Bank loan to be determined.

Future Construction Abroad

FRANCE—Additional information has been received on the **Commercial and Design Center**, located in the "Defense area" of Paris. The Center will consist of buildings comprising 35 thousand square meters: construction should start by mid-1971. The Center will be divided in the following categories: 1) A design and contemporary furniture section; 2) Fashion and accessories; 3) A recreation section which will include movie theaters; 4) Hotels. U.S. companies interested in this vast construction project should contact: COGEPRO, S.A., 88 Avenue de Breteuil, 75 Paris 15e.

JAMAICA—An 11-story $8 million **luxury hotel** to accommodate 700 guests is to be built at St. Ann's Bay. Developers and builders are: Cementation Overseas Construction Ltd., London. Architects are: Raglan, Squire, and Partners, London, in association with McMorris Sibley, Robinson (Architects) 2a Caledonia Crescent, Kingston 5.

KOREA—The Ministry of Education will soon **procure various scientific and laboratory equipment, instruments and furniture** with $8.5 million in IDA loans provided for the improvement of training and laboratory facilities in vocational, high schools and engineering colleges. Bid invitations are expected to be announced by the Office of Supply (OSROK), in July or August.

PHILIPPINES—The Philippines Government has outlined a program for infrastructure and national resources development. The development projects will contain opportunities for American participation both in terms of providing engineering and consulting services and supplying construction and capital equipment. For a copy of the Foreign Service Report listing these development projects, contact Business Opportunities Staff, 580-BOS, Dept. of Commerce, Washington, D.C. 20230.

THAILAND—The **petrochemical industry** now being planned in Thailand by six different groups of foreign investors will be one of Thailand's largest industrial complexes and may offer opportunities for sales of U.S. machinery and equipment. A Foreign Service Report that includes the various investment proposals may be obtained from U.S. Department of Commerce, BDC-584, Washington, D.C. 20230.

VENEZUELA — Construction has been announced of the following large projects. The **Ministry of Education Building** to cost Bs 50 million, construction will be performed through local contractors and will contain two TV studios for educational TV, a motion picture studio, photographic studios and laboratories and considerable audio visual facilities. This equipment will be open to national bidding among registered suppliers. The **Central Post Office** to cost Bs 22 million. Write to: Director de Correos, Ministerio de Comunicaciones, Esquina de Carmelitas, Caracas.

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Business Opportunities Staff and other units of the Bureau of Domestic Commerce (BDC), U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.

U.S. firms should be aware that the listing in Commerce·Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

The mark (●) indicates that this trade opportunity is a request for bids by a foreign government agency. A (★) at the end means that additional information may be borrowed by U.S. firms from the individual division of BDC. To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTD indicates that a World Trade Directory Report containing financial and business background information on the foreign firm is available for $2 from the U.S. Department of Commerce, BIC-924, Washington, D.C. 20230, or any Commerce Field Office.

Direct Sales

Specific foreign firms have expressed interest in direct purchases of the products below. See also the "Agencies" listing.

Commercial farms

01195—SPAIN—Peanuts, for human consumption. Juan Alfonso Puchades (importer, mfr.), Poligono Industrial Vara de Cuart, (Parcela número 7), Valencia (14). WTD 6/71.

Livestock farms

01341 — AUSTRIA — Turkeys, turkey parts. Hoellmueller Ferdinand & Soehne, Handelsgesellschaft (importer, wholesaler), Weinzierl 100, A-3500 Krems a.d. Donau. WTD 5/71.

01344—AUSTRIA—Chicken legs. Hoellmueller Ferdinand & Soehne, Handelsgesellschaft (importer, wholesaler), Weinzierl 100, A-3500 Krems a.d. Donau. WTD 5/71.

Canning, preserving foods

20310—BOLIVIA—Canned fish, sardines. Correspondence requested in Spanish. José Gonzales y Alfredo Carmona M. (importer, retailer), Calle Adolfo Ortega 636, P.O. Box 5588, La Paz. WTD in prep.

20310—ITALY — Canned and preserved fish, particularly mackerel, salmon, tuna fish, stockfish ready for consumption. D'Alessio Francesco (importer, dist.), Via Maremma Inferiore 118, 00010 Pontelucano di Tivoli (Rome). WTD 6/71.

20330 — ETHIOPIA — Complete line of canned fruits, vegetables. Ets. M. A. Wahab (importer, agent, retailer), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

20334 — FRENCH WEST INDIES — Canned, bottled fruit juices: particularly orange juice. Compagnie Guadeloupéenne de Boissons Gazeuses (importer, dist.), Morne Vergain—Abymes, Boite Postale 400, Pointe-a-Pitre—Guadeloupe. WTD 7/71.

20353 — BOLIVIA — Mustard, prepared. Correspondence requested in Spanish. José Gonzales R. y Alfredo Carmona M. (importer, retailer), Calle Adolfo Ortega 636, P.O. Box 5588, La Paz. WTD in prep.

Grain mill products

20440—ETHIOPIA—Milled rice, byproducts. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Beverage industries

20851 — FRANCE — Bourbon in barrels. Calvados Boulard (importer, dist., mfr.), Boite Postale 43, 76—Yvetot. WTD in prep.

Food preparations

20941 — ARGENTINA — Inedible bovine tallow. Correspondence requested in Spanish but English acceptable. Isati S.A. (Sr. F.J. Gonzalez Larrarte) (importer, agent), Corrientes 534, Piso 3-° "A", Buenos Aires. WTD in prep.

20942 — SPAIN — Concentrated animal proteins obtained by hydrolysis with chloridric acid—byproducts of slaughterhouses; feather meal. Juan Alfonso Puchades (importer, mfr.), Poligono Industrial Vara de Cuart, (Parcela número 7), Valencia (14). WTD 6/71.

20943—SPAIN—Fish scrap, cake, meal. Juan Alfonso Puchades (importer, mfr.), Poligono Industrial Vara de Cuart, (Parcela número 7), Valencia (14). WTD 6/71.

20999 — SPAIN — Tea, packaged. Correspondence requested in Spanish. Habib Kentaui (importer, dist.), Puerto de la Luz, 26, El Aaiun, Africa Occidental Española. WTD 7/71.

Broad woven fabric mills, cotton

22110—SPAIN—All classes of finished cotton fabrics. Correspondence requested in Spanish. Habib Kentaui (importer, dist.), Puerto de la Luz, 26, El Aaiun, Africa Occidental Española. WTD 7/71.

22118—ETHIOPIA—Cotton sheets, pillowcases. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Broad woven fabric mills manmade fiber, silk

22218—SPAIN—Finished manmade fiber, silk broad-woven fabrics. Correspondence requested in Spanish. Habib Kentaui (importer, dist.), Puerto de la Luz, 26, El Aaiun, Africa Occidental Española. WTD 7/71.

Knitting mills, products

22522—ETHIOPIA—Men's finished seamless hosiery. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

22531—ETHIOPIA—Sweaters, knit jackets, jerseys. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

22541 — ETHIOPIA — Men's, boys' knit underwear. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

22542—ETHIOPIA—Women's, children's knit underwear. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Men's, youths', boys' suits, coats, overcoats

23113—ETHIOPIA—Men's tailored dress and sport coats, jackets. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Men's, youths', boys' furnishings, work clothing

23212—ETHIOPIA—Men's, youths', boys' knit outerwear sport shirts. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

23215—ETHIOPIA—Men's, boys' nightwear. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

23281—ETHIOPIA—Men's, youths', boys' work shirts. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

23292—NETHERLANDS — Denim jackets, jeans for men, boys. Direct imports,

representations for Benelux countries. Euro-Fashions N.V.; Attn: J. A. Muller (importer, dist., agent), 13 Kon. Wilhelminaplein, P.O. Box 9092, Amsterdam. WTD 6/71.

Women's, misses', juniors' outerwear

23392 — ETHIOPIA — Women's, misses', juniors' washable service apparel. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Hats, caps, millinery

23510 — ETHIOPIA — Hats, caps, millinery. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Girls', children's, infants' outerwear

23610 — ETHIOPIA — Dresses, blouses, waists, shirts. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Miscellaneous apparel, accessories

23871 — ETHIOPIA — Leather belts for men, women, children. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Fabricated textile products

23926 — ETHIOPIA — Bedspreads, bed sets. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Paper mills

26217—AUSTRALIA — Twenty-five tons of two plies high wet strength crepe paper of basis weight DC30 (480's 20″ x 30″) joined with bitumen on basis of 15 lbs. to give total basis weight of 75 lbs. (DC380's); to be supplied in rolls, 42 in. in diameter, 43 in. wide, with core 3 in. in internal diameter; 20 tons of high wet strength crepe paper of basis weight DC30 (480's), in rolls 42 in. in diameter, 43 in. wide, with core 3 in. in internal diameter. Prices c.i.f. Adelaide. Charlicks Papersacks, Attn: Mr. D. Cree (importer, dist., mfr.), Box 124b, GPO, Adelaide, South Australia 5001. WTD in prep.

Industrial chemicals

28190 — SPAIN — Bauxite. Croma, S.A. (importer, mfr.), Fernando el Santo, 27, Madrid (4). WTD 7/71.

Synthetic materials

28210 — GERMANY — Plastics foils for coating steel sheets, strip. Hoesch Trierer Walzwerk AG (dist., mfr.), 156 Schwelmer Strasse, Postfach 166, 56 Wuppertal-Langerfeld. WTD 2/71.

28213—NEW ZEALAND—Synthetic materials suitable for manufacture of uppers for womens fashion shoes, boots. Samples, prices on f.o.b. basis requested. Direct purchase & exclusive agency. Shoestyles Ltd., J. W. Townend, Purchasing Officer (importer, dist., mfr.), 17 Remuera Rd., P.O. Box 9134, Newmarket, Auckland. WTD 12/70.

Drugs

● 28300 — TUNISIA — The Republic of Tunisia's Pharmacie Centrale de Tunisie, 51 Avenue Charles Nicolle, El Menzah, Tunis, has issued an invitation for the supply of medicinal chemicals and pharmaceutical preparations. Tender No. 1/1972, with a bid deadline of September 6, 1971, calls for bids on upwards of 280 items, including ACTH 25 units, 6,500 vials; alphachymotrypsin 5 cc, 50,000 ampoules; alphachymotrypsin ointment 300 units, 60,000 tubes; arginine hcl. 1 gm. IV, 7,500 ampoules; chlortetracycline IV, 100 mg., 16,250 ampoules; barium sulfate, 2,000 Kg.; gauze 20 x 20 or 22 x 22, 120,000 rolls; bipenicillin 500,000 units, 500,000 vials; bipenicillin 1,000,000 units, 1,500,000 vials; buscopan 10 mg., 1,125,000 tabs; buscopan 10 mg., 1,080,000 suppositories; calcium gluconate w/vitamin C, 5 cc., 420,000 ampoules; calcium gluconate w/vitamin C, 10 cc, 550,000 ampoules; cathomycin 250 mg., 20,000 tabs.; chloramphenicol surgical suspension 3 ml. 0.25 mg., 50,000 ampoules; cortisone eye drops 1%, 3 cc., 10,000 vials; acetazolamide 250 mg., 150,000 tabs.; digitalin 0.1 mg., 550,000 tabs.; erythromycin 100 mg., 100,000 tabs.; erythromycin 200 mg., 250,000 tabs.; benzathine penicillin 600,000 units, 27,500 vials; benzathine penicillin 120,000 units, 75,000 vials; thyroid extract 50 mg., 50,000 tabs.; fluothane 250 cc., 1,000 bots.; hydrocortisone IM 125 mg., 5 cc., 12,000 vials; protamine zinc insulin 40 units, 10 cc., 26,000 vials; kanamycin sulfate 4 cc., 30,000 ampoules; chlordiazepoxide 10 mg., 150,000 capsules; meprobamate 400 mg. 5 cc., 22,500 ampoules; oxacillin 250 mg., 70,000 tabs.; oxytetracycline IM 100 mg., 100,000 vials; penicillin G sodium 500,000 units, 1,000,000 vials; penicillin G sodium 1,000,000 units, 2,000,000 vials. Copies of tender are available from the Chemicals, Petroleum and Rubber Division, BDC-712, U.S. Department of Commerce, Washington, D.C. 20230 (Telephone: 202-967-2239). Review copy also is available at the Commerce Field Office, Federal Building, 450 Golden Gate Avenue, San Francisco, California 94102 (Telephone: 415-556-5864).

Soap, detergents, cleaning preparations, perfumes, cosmetics

28421—ETHIOPIA — Household insecticides, repellants. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

28443—ETHIOPIA — Hair preparations. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Paints, varnishes, lacquers, enamels

28517—GERMANY—Industrial lacquers for lacquering steel sheets, strip. Hoesch Trierer Walzwerk AG (dist., mfr.), 156 Schwelmer Strasse, Postfach 166, 56 Wuppertal-Langerfeld. WTD 2/71.

28518—CANADA—Caulking compounds, sealing mixtures. Canflo Hardwood Flooring (mfr.), 1304 Beaumont Ave., Montreal 304, Quebec. WTD 5/71.

● 28700—INDONESIA—Fertilizers, ammonium sulphate, 21% N, 11,740 metric tons; phosphate rock, 35% P_2O_5 on dry matter, 5,170 M/T; muriate of potash (KCl), 60% K_2O, 7,670 M/T; and Kieserite, 20-26% MgO, 3,260 M/T. Tender No. 1507/ASS. Bid deadline Aug. 30. Directorate General of Estates, Djalan Djenderal S. Parman, 73 SLIPI, Djakarta. All quotes must be on properly executed bid formats. Bids must be accompanied by bid bond not less than ¾ of 1% of bid price. Tender specify staggered arrival schedule for various amounts and types beginning Feb. 1972 and ending April 1972 at Belawan Northern Sumatra. Copies of tender documents being forwarded, and copies available from Directorate General of Estates. Chemicals, Petroleum and Rubber Div.-712, U.S. Dept. of Commerce, Washington, D.C. 20230. (Tel. ★202-967-3468).

Petroleum refining

29110 — ARGENTINA — Crude bright stock oil: treated 2500-2900″ at 37°C and 145-155″ at 98°C, viscosity 90; neutral oil: treated 170-190″ at 37.8° temperature, viscosity 90. Requests literature on paraffin-type oils derived from crude petroleum. Antonio Llurba (importer), Portela 302, Buenos Aires. WTD 11/70.

Paving, roofing materials

29523—CANADA — Roof tiles, shingles. Canflo Hardwood Flooring (mfr.), 1304 Beaumont Ave., Montreal 304, Quebec. WTD 5/71.

Plastic products

30798—GERMANY—One to two million pieces plastics balls, colored, possibly from polypropylene, diameter 3 mm, for manufacture of pins. Prices CIF European. port. RHEINISCHE Nadelfabriken GmbH. (dist., mfr.), 19-42 Reichsweg, 51 Aachen. WTD 6/71.

Leather tanning, finishing

31114—HONDURAS—Raw materials for manufacture of all types of suitcases, briefcases. Taufick M. Mourra, Bazar América (importer, retailer) Apartado Postal 235, 6a. Calle 611, Tegucigalpa, D. C. WTD 5/70.

Footwear, except rubber

31411—ETHIOPIA—Men's dress shoes; play shoes. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

31412—ETHIOPIA—Men's work shoes. Ets. M. A. Wahab (importer, dist., agent), P. O. Box 502, Djibouti, Ftai. WTD 6/71.

31414 — ETHIOPIA — Women's dress, work, play shoes. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Luggage

31610 — ETHIOPIA — Suitcases, briefcases, bags, musical instrument cases. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Handbags, other personal leather goods

31710—ETHIOPIA—Women's handbags, other personal leather goods. Ets. M. A. Wahab (importer, dist., agent), P.O. Box 502, Djibouti, Ftai. WTD 6/71.

Glass, glassware

32210 — JAMAICA — Nine fluid ounce stock bottles; 53 mm twist top. Approximate order size: 2000 cases per wk. DaCosta Bros. Ltd.: Mgr.: Miss Mabel Tenn (mfr.), 257A Spanish Town Rd., WTD in prep.

Glass products

32315—PORTUGAL—Bus rearview mirrors, inside and outside type. METALOFABRIL-Fabricação de Equipamento Metalomecanico, Lda. (mfr.), Estrada da Paia, Odivelas. WTD in prep.

Steel mill products

33126—ZAMBIA—Steel galvanized water pipe, ½" to 6" through range. Les McLean Ltd. (importer, dist.), P.O. Box 492, Ndola. WTD 4/71.

33127 — GERMANY — Cold-rolled thin steel sheets, in coils, hot galvanized or with bright surface. Hoesch Trierer Walzwerk AG (dist., Mfr.), 156 Schwelmer Strasse, Postfach 166, 56 Wuppertal-Langerfeld. WTD 2/71.

Rolling, drawing, extruding of nonferrous metals

● 33500—ETHIOPIA—Supply of various sizes 250,000 meters long of polythene insulated and sheathed and paper insulated telephone cables. Tender No. 12/71 Bid deadline Sept. 9, 1971. Contact Imperial Board of Telecommunications of Ethiopia. Copies of tender available on a loan basis from the Copper Program. BDC-784, Washington, D.C. 20230. Telephone ★(202) 967-4718.

Fabricated structural metal products

34425 — CANADA — Metal window and door screens. Canflo Hardwood Flooring (mfr.), 1304 Beaumont Ave., Montreal 304, Quebec. WTD 5/71.

34460 — CANADA — Decorative grilles used in construction industry. Canflo Hardwood Flooring (mfr.), 1304 Beaumont Ave., Montreal 304, Quebec. WTD 5/71.

Metal stampings

34615 — NETHERLANDS — Stainless steel kitchen utensils, similar products. Direct purchase or agency for Benelux area. Van Zwanenburg N.V., Attn: A.R. de Visser, Gen. Mgr. (importer, dist./exporter, manufacturer), Groothandelsgebouw, Weena C 723, or P.O. Box 29153. WTD 5/71.

34618 — PORTUGAL — Metal ashtrays, other hardware for use in bus body construction. METALOFABRIL-Fabricação de Equipamentos Metalomecanico, Lda. (mfr.), Estrada da Paia, Odivelas. WTD in prep.

Fabricated wire products

34813 — PORTUGAL — Seat and back springs for motor vehicles. METALOFABRIL-Fabricação de Equipamentos Metalimecanico, Lda. (mfr.), Estrada da Paia, Odivelas. WTD in prep.

Engines, turbines

● 35100—PANAMA — Supply two Francis Type 105,000 metric HP turbines and two 84,000 KVA, AC generators for installation at Bayano Hydroelectric Project. Bid deadline Sept. 15. Financing by IBRD. Specifications and plans available at Panamanian Embassy, Washington, D.C.; Stone and Webster, Inc., 90 Broad Street, New York; and IRHE Headquarters, P.O. Box 5285, Panama 5. Complete set can be purchased for $75.00 at last address. Proposal forms available at all locations.

Farm machinery

35228 — ARGENTINA — Maize plant pruning equipment capable of cutting tops of maize plants for better crop development. Sr. Alfredo Ferrari, Pres. A.P.R.A.R.D.O. (oil seed producers assn), Moreno 2011, Rosario, Provincia de Santa Fe. WTD in prep.

Construction, mining, materials handling machinery, equipment

● 35300—ARGENTINA—Mine crushers, feeders, screens, and separators for iron ore pelletizing plant. Tender No. 201-1/71; bid deadline Oct. 4, 1971. Hierro Patagonico de Sierra Grande S.A.M. (Hipasam), Billinghurst 2447, Piso 2, Buenos Aires. Conditions available for 300 Argentine pesos from Hipasam at the above address. When recevied, conditions available on a short term loan basis to firms domiciled in the U.S. from General Industries Division, BDC-772, U.S. Department of Commerce, Washington, D.C. 20230. ★(Telephone: 202 967-4317).

● 35300—INDIA—Six diesel engine rubber tired dozers not less than 60,000 lbs. including the dozer attachment. Tender No. 1208/BPO/PR/56397/A-2787; bid deadline Sept. 9, 1971. Specifications available on a short-term loan basis to firms domiciled in the U.S. from the General Industries Div., BDC-772, U.S. Dept. of Commerce, Washington, D.C. 20230. (Tel. ★202-967-4317).

35319 — NETHERLANDS — Automotive winches. Exclusive representations. General Equipment Firma Linse (importer, dist., agent), 16 Rosariumlaan, Driebergen. WTD in prep.

Metalworking machinery

35400—INDIA—Horizontal boring machine, 6 speeds ranging from 80 to 1000 RPM, 405 x 560 mm. table, and 205 mm. dia. facing capacity. Tender No. 107/14/081/24.2.71, bid deadline Sept. 3. Director General Supplies and Disposals, Jeevantara Building, Parliament Street, New Delhi. Tender copies (I.S.M. Ref. No. CDN/ENQ/53) are available from the India Supply Mission, 2536 Massachusetts Ave., N.W., Washington, D.C. 20008, for $2.50 per copy.

● 35409—SOUTH AFRICA—Four stand tandem cold mill. Enquiry No. V202, bid deadline October 12. Head, Capital Buying, South African Iron and Steel Industrial Corp. Ltd., P.O. Box 450, Pretoria, Transvaal. Enquiry documents are obtainable from ISCOR, against a deposit of R150.00 ($210.00) which will be refunded on receipt of a bona fide tender.

35424—MEXICO—New, used or reconstructed metal injection machine for casting of non ferrous articles (aluminum, zamac, bronze) such as washing machine valves, pulleys, with casting capacity for articles weight of up to 1 kilogram. Productos Rechazados Y Troquelados, S.A., c/o. Narciso LOZA Llanos (importer), Carlos Salazar Pte. 844, Monterrey, N.L. WTD in prep.

35451—SWITZERLAND—Advanced machine tool accessories. J. H. Brigel (importer, dist., agent), Seestrasse 85, 8712 Staefa. WTD 7/71.

35452—SWITZERLAND—Equipment for dimensional measuring, dimensional gages, comparators, adjustable size limit gages, gage blocks, pneumatic gages, dividers, calipers, layout machines, inspection, checking equipment. J. H. Brigel (importer, dist., agent), Seestrasse 85, 8712 Staefa. WTD 7/71.

35485—JAPAN—Supply stands (or wire spooling or coiling machines) for use with wire drawing machines; capacity: 2-3 tons per coil of steel wire with diameter from 16 mm to 32 mm. Maruka Machinery Co., Ltd. (importer), 41 Bungo-machi, Higashi-ku, Osaka. WTD 6/70.

35485 — MEXICO — Reconstructed wire flattening machinery with flattening capacity of from .014"-.025", production capacity 3 tons per 8 hr. shift; reconstructed wire drawing machinery with drawing capacity from .030"-.125", production capacity 4 tons per 8 hr. shift; reconstructed wire coating machinery (copper and galvanized for coating flat and round wires with production capacity 4 tons per 8 hr. shift. FAG, S.A. c/o. Ing. Jaime González Cárdenas (importer, mfr.), 5 de Febrero Ote. 1122, Colonia Nuevo Repueblo—Apartado Postal 4069, Monterrey, N.L. WTD 6/70.

Special industry machinery

35510 — ARGENTINA — Machinery & equipment for installing meat packing plant to handle about 20,000 head of cattle monthly. Descriptive literature & quotations requested. Luis M. Trujillo, Dir. Mirosa S.A. (meat packing plant), Córdoba 1367, piso 11, Buenos Aires. WTD in prep.

35510—JAMAICA—One ginaca machine, or equal, (second hand) to core, peel, and size pineapples; one "push and tack" machine (new or second hand) to make its own 1½ oz. container, fill and seal. Information on specifications and price requested. Quotations c.i.f. Kingston. DaCosta Bros. Ltd.: Mgr. Miss Mabel Tenn (mfr.), 257A Spanish Town Rd., Kingston. WTD in prep.

35512—AUSTRALIA—Machinery to produce bagels. Hesdol & Co. Pty. Ltd. (importer, dist., mfr.), 1 Carlotta St., Artarmon, N.S.W. 2064. WTD in prep.

35512—KOREA — Slicer—two or three machines needed to slice peaches for canning. Yung Jin Food Industrial Co. (Mr. In Kyu Lee) (food processor), 37 1-ka, Pupyong-dong, Chung-ku, Pusan. WTD in prep.

35513—HONDURAS—Machinery, equipment to manufacture suitcases, briefcases. Requests catalogs, price lists. Bazar América, Taufick M. Mourra (importer, mfr., retailer), Apartado Postal 235, 6a. Calle 611, Tegucigalpa, D.C. WTD 5/70.

35522—PAKISTAN—Plant & machinery for cotton spinning mill of 25,000 spindles including auxiliary equipment, accessories, testing equipment, air conditioning machinery, components, spare parts. Bid deadline 8/25/71. Specifications available from Business Opportunities Staff, BOS-584, Rm. 3515, U.S. Dept. of Commerce, Washington, D.C. 20230. Ghafooria Textile Mills Ltd. (importer), 1st Floor Sattar Chambers, 99 Commercial Area, Agrabad, Chittagong, E. Pakistan. WTD in prep.

35522—PAKISTAN—Supply of plant & machinery for cotton spinning mill of 12,500 spindles including auxiliary equipment, accessories, testing equipment, air conditioning machinery, components, spare parts. Bid deadline 8/25/71. Specifications available from Business Opportunities Staff, BOS-584, Rm. 3515, Washington, D.C. 20230. I & H Cotton Mills, Ltd. (importer), 21 Dilkusha Commercial Area, Dacca, E. Pakistan. WTD in prep.

35522—PAKISTAN—Supply of plant & machinery for cotton spinning mill of 12,500 spindles including auxiliary equipment, accessories, testing equipment, air conditioning machinery, components, spare parts. Bid deadline 8/28/71. Specifications

available from Business Opportunities Staff, BOS-584, Rm. 3515, Washington, D.C. 20230. Modhumita Textile Mills Ltd. (importer), Modhumita Bldg., Motijheel Commercial Area, Dacca, E. Pakistan. WTD in prep.

35540—MEXICO—Used machinery for manufacture of small cellophane bags (2″ x 4″ to 4″ x 8″); production capacity 10,000 to 20,000 bags per 8 hr. shift. Eduardo Belles Muntada Productos Alimenticios y Condimentos (importer, mfr.), Avenida Capricornio 216, Colonia Contry, Monterrey, N.L. WTD in prep.

35551—AUSTRALIA—Machinery to produce small, gummed return address stickers for ordinary personal correspondence. Hesdol & Co. Pty. Ltd., Attn: Peter Hesky, Dir. (importer, dist., mfr.), 1 Carlotta St., Artarmon, N.S.W. 2064. WTD in prep.

35595—ARGENTINA—Small or medium-sized soybean processing plants. Sr. Alfredo Ferrari, Pres. A.P.R.A.R.D.O. (oil seed producers assoc.), Moreno 2011, Rosario, Province of Santa Fe. WTD in prep.

35595 — GERMANY — Surface treating machines for metal strips. Hoesch Trierer Walzwerk AG (dist., mfr.), 156 Schwelmer Strasse, Postfach 166, 56 Wuppertal-Langerfeld. WTD 2/71.

35595—ISRAEL—Machinery for manufacture of single-dose sterile eye drops. Galma Ltd.-Pharmaceutical Chemical Laboratories (importer, mfr., agent), 15 Lilienblum St. P.O. Box 187, Tel Aviv. WTD in prep.

35595 — PHILIPPINES — Machinery, equipment for manufacture of porcelain electrical insulators with capacity of 10 tons a day; machinery, equipment for integrated processing of asbestos into vinyl floor tiles and insulating materials (breaklining, clutch facing, gasket sheeting, etc.) with following capacities per day: vinyl floor tiles—50,000 pcs.; breaklining—10,000 pcs.; clutch facing—5,000 pcs.; gasket sheeting—5,000 pcs. La Suerte Resources & Industries, Inc. (mfr., mining), Suite "G", 5th Fl., Davies Far East Bldg. 222 Buendia Ave., Makati, Rizal. Attn: Mr. Bing T. Huang. WTD in prep.

● **35600 — INDONESIA** — Twenty water pumps with 20 H.P. air cooled diesel engine plus spares; four air compressors, minimum capacity 150-200 CFM at 100 psi at sea level, prefer reciprocating type, plus spares. Tender No. IDA-001/IRP/71; bid deadline 0900 hours Sept. 6, 1971. Perusahaan Umum Otorita Djatiluhur, Djaian Pattimura 20, Blok K III, Kebajoran Baru, Djakarta. When received, specifications available on a short-term loan basis to firms domiciled in the U.S. from General Industries Div., BDC-772, U.S. Dept. of Commerce, Washington, D.C. 20230. (Tel. ★202-967-4317).

● **35600 — COLOMBIA** — Two vertical pumps, with motors and controls, one substation, two fork valves, two gate valves, one bridge crane, and spare parts for above equipment. Tender No. 107-T-II-15-A, bid deadline 4:00 P.M., Sept. 15. Direccion del Plan Maestro de Acueducto, Carrera 40, No. 22-B-60 Tercer Piso, Bogota. Specifications may be purchased from The Direccion del Plan Maestro de Acueducto for 1500 pesos Colombian currency or $75 (dollars) for first set. Cost of each additional set is 500 pesos or $25 (dollars).

35613—GERMANY—Pumps for sewage systems. Direct purchase & agency, GUSS- und Armaturwerk Kaiserslautern Contact: Wilhelm Grosch (dist., mfr.), 5 Hohenecker Str., 6750 Kaiserslautern. WTD 7/71.

General industrial machinery

35662 — GERMANY — Industrial drives. Prices c.i.f. European ports. Direct purchase & agency. Kauermann KG (wholesaler), 24 Rotthaeuserweg, 4 Duesseldorf-Gerresheim. WTD 8/70.

Office, computing, accounting machines

35720 — JAPAN — Portable typewriters, high quality, for student use; size abt. 11.65 x 12 x 3.09 in., weight abt. 9.92 lbs. including case, paper capacity 9.53 in., writing line pica 82 words elite 100 words, number of keys 44. Delivery ASAP. Payment L/C at sight. Requests prices for various quantities with brochures. Retail price range $85-$1,390. Sailor Pen Co., Ltd. (Sailor Mannenhitsu Kabushiki Kaisha) (dist., mfr.), 13 Kayaba-cho 2-chome, Nihonbashi, Chuoku, Tokyo. WTD 6/71.

Special Action

The following trade notice is deemed to rate the special attention of American manufacturers and suppliers by the U.S. Commercial Officers overseas.

35850 — NETHERLANDS — The U.S. Embassy, The Hague, The Netherlands, has completed a mini market survey on the expanding Dutch market for air conditioning equipment. A listing of 20 firms desiring to represent American manufacturers may be obtained from Business Opportunities Staff, BOS-584, Room 3515, U.S. Dept. of Commerce, Washington, D.C. 20230.

35791—ARGENTINA—Envelope stuffing, sealing, addressing machines; letter folding, stuffing, sealing machines. Direcciones Lar S.R.L. (Sr. Jorge Florian Oliver) (mailing company), San Juan 767, Buenos Aires. WTD in prep.

Service industry machines

35853—HUNGARY—Laboratory refrigeration equipment for bacteriological use. Novenyvedo Allomas (Plant Protection Station), (laboratory), Tanakajd.

35891—NETHERLANDS — Institutional, commercial kitchen, foodwarming, cooking equipment, coffee makers. Direct purchase & agency for Benelux area. Van Zwanenburg, N.V., Att: A. R. de Visser, genrl. mgr. (importer, dist./exporter, mfr.), Groothandelsgebouw, Weena C 723, or P.O. Box 29153. WTD 5/71.

Electric transmission, distribution equipment

● **36100—CYPRUS** — Supply power and control cables, lighting and power installations and extensions for station earthing system and six-bay 132 KV switchyard which comprise the third extension to Moni Power Station in Nicosia. Purchaser will have option purchase equipment associated with 132 KV switchyard. Tender No. 1979/15, Ref. M/787/6062/71, bid deadline Aug. 30. Documents available from Electricity Authority of Cyprus, P.O. Box 4506, Nicosia, at cost of $48. Additional information available at Department of Commerce, Power Equipment Program, Room 5898C, ★(202-967-5585), Washington, D.C.

● **36100—ECUADOR**—One 66,000/4,160 v, 7,000 **kilowatt downgrade substation**, complete with 60 kilowatt automatic switch; switch blades; metal structures; other protection equipment; one set control & gauge panels, 4,160 v, mounted outdoors; 2 450 kilowatt, 4,200/480 v substations, interior type; one motor control center 480 v; power & cables, accessories; 1 battery group with charger. Bid deadline not later than 4:00 pm., Sept. 13, 1971. Specifications $20.00 (approx.), nonreimbursable, plus $10.00 to cover air mail postage to U.S. All bidders required to present deposit in form of bank guarantee or certified check drawn in favor of firm in amount equivalent to 10% of c.i.f. value of bid. Correspondence requested in Spanish. Cemento Chimborazo C.A., Calle Estrada 132 y Calle Tarqui, Quito.

● **36100—KOREA**—Supply of **six trend recorders, two oscilloscopes, one frequency counter, ten signal generators, ten thruline power meters.** Tender No. KFX-71123-PI, bid deadline Aug. 24. Invited by the Office of Supply, Government of the Republic of Korea, Seoul, Korea. Terms and specifications available on short term loan basis from the Business and Scientific Equipment Division, BDC-708, U.S. Department of Commerce, Washington, D.C. 20230. ★202-967-2939)

● **36100 — KOREA** — Supply of standby power supply, quartz oscillator, portable frequency counter, portable oscilloscope, portable signal generator, etc. Tender No. KFX-71122-PI, bid deadline Aug. 20. Invited by the Office of Supply, Government of the Republic of Korea, Seoul. Terms and specifications available on short-term loan basis from BDC-708, U.S. Department of Commerce, Washington, D.C. 20230. (Telephone: 202-967-2939).

● **36100—KOREA**—Supply of constant current pulse generator-preamplifier, galvanometer, laser microprobe spectrograph system, solid stage scintillation counting system, portable proton magnetometer, etc. Tender No. KFX-71119-PI, bid deadline Aug. 20. Invited by the Office of Supply, Government of the Republic of Korea, Seoul. Terms and specifications available on short-term loan basis from BDC-708, U.S. Department of Commerce, Washington, D.C. 20230. (Telephone: 202-967-2939).

● **36100—THAILAND**—Supply 460 sets of 600 V class current transformer, window type, molded butyl rubber or resin insulation for outdoor and indoor use. Tender No. MEA-PSD-249, bid deadline Sept. 13. Send to Purchase & Stores Department, Metropolitan Electricity Authority, 121 Chakpet Road, Bangkok. Copies of specifications available at U.S. Commerce Department, Room 5898C, Power Equipment Program ★(phone: 202-967-2861) Washington, D.C. 20230.

● **36100 — THAILAND** — Supply main control board; indicating meters and synchronizing equipment; protective and auxiliary relays; control and instrument switches, potential and current test de-

vices and indicating lamps. Tender No. A-005, bid deadline Oct. 10, 1971. Tender documents available for sale in mid July at $50 per set of 2 copies at Foreign Purchasing Section, Procurement Division, Supply and Procurement Department, Electricity Generating Authority of Thailand, Nonthaburi. Only bids from suppliers in member countries of the Asian Development Bank will be considered.

● **36100—THAILAND**—Supply shunt capacitor banks and accessories; switchgears and power circuit breakers; air switches; power cable and accessories; and special shunt capacitor banks and accessories. Tender A-004, bid deadline Sept. 30, 1971. Contact Foreign Purchasing Section, Procurement Division, Supply and Procurement Department, Electricity Generating Authority of Thailand, Nonthaburi. Tender documents available at Embassy of Thailand, Washington, D.C. 20230, at $50 per set of 2 copies. Only bids from suppliers in member countries of Asian Development Bank will be considered.

● **36100—THAILAND**—Supply 3 sets of 69 KV indoor substation equipment, for use in 69 KV 3-phase, 50 HZ neutral subtransmission system. The standard transformer size is 30/40 MVA. Tender No. MEA-PSD-246, bid deadline Aug. 23, 1971. All bids must be submitted to Purchases and Stores Department, Metropolitan Electricity Authority, 121 Chakraphet Road, Bangkok 2. Copies of specifications available U.S. Department of Commerce, Washington, D.C. 20230 by contacting Power Equipment Program, Room 5898C (telephone: 202-967-2861).

● **36100—THAILAND**—Supply 26 sets of 11.5 KV substation switching capacitor bank and 100 units of spare external fuse for use with capacitors. Tender No. MEA-PSD-248, bid deadline September 6. Contact Purchases and Stores Department, Metropolitan Electricity Authority, 121 Chakraphet Road, Bangkok 2. Copies of specifications available at U.S. Department of Commerce, Room 5898C, Power Equipment Program (phone: 202-967-2861).

● **36100 — THAILAND** — Supply three units of 115/24 KV power transformers and ASA impulse tester, including spare parts. Tender No. MEA-PSD-247. bid deadline Aug. 30. Specifications available at Department of Commerce, Room 5898C, Power Equipment Program, Washington, D.C. 20230. Telephone: ★202-967-2861. Foreign agency to be contacted is Purchases & Stores Department, Metropolitan Electricity Authority, 121 Chakpet Road, Bangkok 2.

● **36100—TRINIDAD, W.I.**—Galv. Tubular Ground Rods, Tender No. 2252; ACSR Conductor, Tender No. 2253; Linesmen's Climbing Belts, Tender No. 2254; ½" Span Wire, Tender No. 2255; Fluorescent Lamps, Tender 2256; Ballasts, Tender No. 2257; Suspension Clamps, Tender No. 2258S; Lightening Arrestors, Tender No. 2259; Dead End Clamps, Tender No. 2260; Tubular Steel Poles, Tender No. 2261; Line Connectors, Tender No. 2268, bid deadline Sept. 10. The Purchasing Officer, Trinidad and Tobago Electricity Commission, 63 Frederick Street, Port of Spain. Specifications available on a short-term loan basis to firms domiciled in the U.S. from General Industries Division, BDC-776, U.S. Department of Commerce, Washington, D.C. 20230. (Telephone 202-967-5589). A review copy will also be available at the Department of Commerce Field Office, 11444 Federal Building, 450 Golden Gate Ave., San Francisco, Calif. 94102. (Telephone 415-556-5868).

Household appliances

36311—SWITZERLAND—Electric household ranges, ovens, built-in, parts, accessories for household electric ranges. Aktiengesellschaft Hermann Forster (dist., mfr.), Romanshornerstrasse, 9320 Arbon. WTD 7/71.

36312 — SWITZERLAND — Built-in gas household ovens, ranges; parts, accessories. Aktiengesellschaft Hermann Forster (dist., mfr.), Romanshornerstrasse, 9320 Arbon. WTD 7/71.

36321—SWITZERLAND—Built-in household refrigerators, combination refrigerator freezers, 6.4 cubic ft. and under, range-refrigerator sink combinations, parts. Aktiengesellschaft Hermann Forster (dist., mfr.), Romanshornerstrasse, 9320 Arbon. WTD 7/71.

36344—SWITZERLAND — Parts, accessories for electric household heaters. Aktiengesellschaft Hermann Forster (dist., mfr.), Romanshornerstrasse, 9320 Arbon. WTD 7/71.

Electric lighting, wiring equipment

Radio, television receiving sets

36520 — JAMAICA — Pre-recorded magnetic 8 track cassette tapes. Catalogs requested. Jamaica Times Ltd., Mgr: Colin Durie (importer, retailer), 8 King St., Kingston. WTD 4/71.

36520 — NETHERLANDS — Phonograph records. Exclusive representations for Benelux countries. Inelco Holland N.V. (importer), A. J. Ernststraat 801; P.O. Box 7970, Amsterdam. WTD 7/71.

Communication equipment

36622 — BOLIVIA — Machinery, system for moving sentences on illuminated display. Informativo Luminoso (importer), Avenida Camacho 1377 7° Piso, P.O. Box 3606, La Paz. WTD in prep.

36622—HUNGARY—Medium wave broadcasting transmitter of 15,000 to 2000 kilowatts capacity. Georg Veg, Director Electroimpex (importer), Budapest V, Munnich Ferenc U. 21.

36623 — HUNGARY — Automatic water purity control devices, instrumentation. Berke Barnabas, National Water Authority Research Scientist (importer), Budapest VIII, Rakoczi Ut. 41.

Electronic components, accessories

36749—NETHERLANDS—All types of semiconductor devices, similar electronic components. Exclusive representations for Netherlands, Belgium. Inelco Holland N.V. (importer), A. J. Ernststraat 801; P.O. Box 7970, Amsterdam. WTD 7/71.

36792 — NETHERLANDS — Capacitors, military specifications representations for Dutch army, navy & air force, governmental research institutions. Technische Handelsonderneming OLFAERO (importer, dist., agent), 32-34 Max Havelaarlaan, P.O. Box 5, Amstelveen. WTD 7/71.

36793—NETHERLANDS—Resistors, military specifications. Representations for Dutch army, navy & air force, governmental research institutions. Technische Handelsonderneming OLFAERO (importer, dist., agent), 32-34 Max Havelaarlaan, P.O. Box 5, Amstelveen. WTD 7/71.

36795 — NETHERLANDS — Capacitors, resistors, other components, accessories for electronic application. Exclusive representations for Netherlands, Belgium. Inelco Holland N.V. (importer), A. J. Ernststraat 801; P.O. Box 7970, Amsterdam. WTD 7/71.

Electrical machinery, equipment, supplies

36930—SPAIN—X-ray equipment, including X-ray tubes, electrotherapeutic apparatus Electrónica Médica e Industrial, S.A. (importer, dist.), Reina, 37 Madrid (4). WTD 6/71.

36992—PORTUGAL—Bus buzzers, bells, chimes. METALOFABRIL-Fabricação de Equipamento Metalomecanico, Lda. (mfr.), Estrada da Paia, Odivelas. WTD in prep.

Motor vehicles, motor vehicle equipment

37111—JAPAN—Used passenger cars of sporty type, good running condition. Inquiries preferred from West Coast cities. Sanyu Bussan Kaisha, Ltd. (importer, dist.), Nikko-Mita Bldg., 4-26 Takanawa 1-chome, Minato-ku, Tokyo. WTD 4/70.

Engineering, laboratory, scientific, research instruments

● **38100—GREECE**—Supply of scientific equipment for the School of Agriculture and Forestry, Aristotle University of Thessaloniki, including: topographic plotter; unit for sterilization of milk and milk products; complete milk pasteurizing unit; parts and accessories for atomic absorption spectrophotometer; instruments of cotton technology; instruments of sugar beets technology; ultracentrifuge. Bid deadline Aug. 27. Invited by Aristotle University of Thessaloniki, The Rector, Thessaloniki. Terms and specifications available on short-term loan basis from BDC-708, U.S. Department of Commerce, Washington, D.C. 20230.* (Telephone: 202-967-2939).

Surgical, medical, dental instruments

38410—AUSTRIA—Instruments for cardiac, vascular surgery, cardiocatheters, lymphographic, arteriographic equipment, vascular, other implants. J. Odelga, aerztlich-technische Industrie Ges.m.b.H. (importer, wholesaler), Ganglbauergasse, 11, P.O.B. 105, A-1171 Vienna. WTD 5/71.

38421 — NETHERLANDS — Artificial limbs, braces, tools, supplies for orthopedic appliances, other orthopedic aids. Exclusive representations. Firma Joh. Th. Schulte (importer, dist.), Amstel 132, Amsterdam. WTD 7/71.

Photographic equipment, supplies

38610 — HUNGARY — Multivision slide projector, film projector, slide (dia) projector. Adam Sandor, Electrical Engineer Ministry of Metallurgy & Heavy Industry KGM (importer), Budapest V, Arany Janos U. 24.

Watches, clocks, parts

38710 — ETHIOPIA — Watches, clocks, clockwork operated devices; parts. Ets.

M. A. Wahab (importer, dist., agent), P. O. Box 502, Djibouti, Ftai. WTD 6/71.

Toys, amusement, sporting goods

39410 — NETHERLANDS — Educational games, toys; jig-saw puzzles; coloring books. Exclusive representations for Benelux countries. Selecta N.V.; Attn: P.A. Joosting Bunk Jr. (importer, dist., agent), 2 Emmerikstraat, P.O. Box 176, Deventer. WTD 7/71.

Manufacturing industries

39912 — IVORY COAST — Rubber or plastic paint rollers with designs. Correspondence requested in French. Société des Travaux de Décoration (importer, retailer), Boîte Postale 4546, Abidjan. WTD in prep.

Business services

73920—MEXICO—Consultant's assistance in creating an econometric internal-finance model for computer application, including advising on project organization, general structuring of microeconomic model, adaptation for computer usage. Depto. de Estadistica, Banco Nacional de Mexico, atencion de: Dr. Ricardo Lassala (banking chain), Monterrey 33, piso 7, Mexico 7, D.F. WTD in prep.

Agencies

Specific foreign firms have expressed interest in agency agreements for the products listed blow. Exclusive agencies for these products are wanted only if specified.

Meat products

20110 — NETHERLANDS — Beef, pork, variety meats, glands, etc. Exclusive distributors for own account and/or sales on commission basis. Sales territory Europe. Brussaard's Handelmaatschappij N.V., Attn: J. P. Dekker, Mgr. (importer, dist./exporter, agent), 12 Goudsesingel or P.O. Box 83, Rotterdam. WTD 6/71.

20118 — TAIWAN — Canned meats. Agency including sales to military exchange. Orient Trading & Industry, Ltd. (importer, agent), P.O. Box 3240, Taipei. WTD 3/70.

20154 — TAIWAN — Canned poultry. Agency including sales to military exchange. Orient Trading & Industry, Ltd. (importer, agent), P.O. Box 3240, Taipei. WTD 3/70.

Canning, preserving foods

20310—SPAIN—Canned, cured sea foods. Correspondence requested in Spanish. Joaquin Picazo Guillén (agent), Alonso Cano, 83, Madrid (3). WTD 6/71.

20310 — TAIWAN — Canned seafood. Agency including sales to military exchange. Orient Trading & Industry, Ltd. (importer, agent), P.O. Box 3240, Taipei. WTD 3/70.

20322—TAIWAN—Canned soups. Agency including sales to military exchange. Orient Trading & Industry, Ltd. (importer, agent), P.O. Box 3240, Taipei. WTD 3/70.

20330 — SPAIN — Canned fruits, vegetables. Correspondence requested in Spanish. Joaquin Picazo Guillén (agent), Alonso Cano, 83, Madrid (3). WTD 6/71.

20331—TAIWAN—Canned fruits. Agency including sales to military exchange. Orient Trading & Industry, Ltd. (importer, agent), P.O. Box 3240, Taipei. WTD 3/70.

20332 — TAIWAN — Canned vegetables. Agency including sales to military exchange. Orient Trading & Industry, Ltd. (importer, agent) P.O. Box 3240, Taipei. WTD 3/70.

20334—TAIWAN—Canned fruit juices. Agency including sales to military exchange. Orient Trading & Industry, Ltd. (importer, agent), P.O. Box 3240, Taipei. WTD 3/70.

20335 — TAIWAN — Canned vegetable juices. Agency including sales to military exchange. Orient Trading & Industry, Ltd. (importer, agent), P.O. Box 3240, Taipei. WTD 3/70.

20341—ISRAEL — White, dried, haricot beans in bags of abt. 130 lbs. (60 kilos) each; dried fruits (prunes, sultana raisins, apples) in cartons of 30 lbs. each. Exclusive agency. Middle East Trade Agency, Attn: I. J. Goldstein, Man. Dir. (dist., agent), 12 Bnei Dan St., P.O. Box 379, Tel Aviv. WTD in prep.

20350 — SPAIN — Pickles, sauces, salad dressings. Correspondence requested in Spanish. (agent), Alonso Cano, 83, Madrid (3). WTD 6/71.

Grain mill products

20430 — CANADA — Cereals, breakfast foods. George L. Edmondson & Assoc. (importer, dist., agent), 1038 Hamilton St., Vancouver, B.C. WTD 7/71.

Sugar

20620 — CEYLON — Commission agency from American supplier/broker of granulated cane sugar shipped in commercial units from sources in Asia or Europe. Abeysinghe & Co., D. A. (dist., mfr., agent), 377 Darley Rd., Colombo 10. WTD 10/70.

Confectionery

20710—CANADA—Candy, other confectionery products. George L. Edmondson & Assoc. (importer, dist., agent), 1038 Hamilton St., Vancouver, B.C. WTD 7/71.

20710 — JAMAICA — Confectionery, all types. Quotations: c.i.f. Kingston. Antillian Import-Export Co. Ltd., Attn: Leonard McNair (importer, dist., retailer), 91 Harbour St., Kingston. WTD in prep.

Converted paper, paperboard products

26414—GERMANY—Masking tape, heat and water resistant, for use in automobile body painting plants. Althaus & Vogt GmbH (importer, dist., agent), 40 Brueckstr., 4630 Bochum. WTD 9/70.

26490 — JAMAICA — Stationery, writing paper and envelopes, allied products. Sangster's Book Stores Ltd., Sales Mgr.: Michael Henry (importer, agent, retailer), 97 Harbour St., P.O. Box 366, Kingston. WTD 1/71.

Publishing

27410—JAMAICA—Educational software and aids. Sangster's Book Stores Ltd., Sales Mgr.: Michael Henry (importer, agent, retailer), 97 Harbour St., P.O. Box 366, Kingston. WTD 1/71.

Synthetic materials

28231—PORTUGAL—Acetate staple fiber, yarn. João Pinto & Filhos Lda. (importer, agent), Apartado 185, Covilhã. WTD in prep.

28232—PORTUGAL—Rayon yarn, staple fiber. João Pinto & Filhos Lda. (importer, agent), Apartado 185, Covilhã. WTD in prep.

28241—PORTUGAL—Polyamide filament yarn. João Pinto & Filhos Lda. (importer, agent), Apartado 185, Covilhã. WTD in prep.

28242—PORTUGAL—Polyester filament yarn, polypropylene filament yarn, other man made fiber yarns, staple fibers. João Pinto & Filhos Lda. (importer, agent), Apartado 185, Covilhã. WTD in prep.

Drugs

28340—JAMAICA—Pharmaceuticals to be sold without prescriptions. Quotations: c.i.f. Kingston. Antillian Import-Export Co. Ltd.; Attn: Leonard McNair (importer, dist., retailer), 91 Harbour St., Kingston. WTD in prep.

28340 — ARGENTINA — Pharmaceutical preparations. Carlos Alberto Batmale (agent), Nueva York 3046, Buenos Aires. WTD in prep.

28340—AUSTRALIA—Ethical & proprietary pharmaceutical lines. Swift & Company (Trading) Pty. Ltd., Attn: David Graham, Div. Mngr. (importer, dist., agent), 149-155 Milton St., Ashfield, N.S.W. 2131. WTD 3/71.

28349—GUATEMALA — Pharmaceutical preparations for veterinary use. Correspondence requested in Spanish. Centro Agricola Valenzuela (importer, dist., agent), 8a. Calle 10-21, Zona 1—P.O. Box 510, Guatemala City. WTD 7/71.

Chemical products

28911 — TAIWAN — Adhesives; rubber, synthetic resins. Lynnbros Industrial Co., Ltd. (importer, agent), 7, Lane 118, Chien Kou North Rd., Taipei. WTD 9/70.

Glass products

33122—PORTUGAL—Steel ingots: carbon 3.5-4%; silicon 3-3.5%; manganese 0.7-1%; phosphor 0.5-0.7%; maximum sulfur 0.05%. Fundiçao de Oeiras-Fundiçao e Construçao Mecanicas, S.A.R.L. (importer, mfr.), Apartado 2711, Libson 2. WTD 3/71.

Cutlery, hand tools, general hardware

34230 — ARGENTINA — Low cost, mass produced hand tools. Exclusive agency. Arnaldo N. Parodi (agent), Milton 327, Buenos Aires. WTD in prep.

34233—SINGAPORE—Machines for soldering elements to printed circuits. A. R. Lowe, Dir., Maclaine Watson (Imports) Pvt. Ltd. (importer, dist., agent), P.O. Box 695, Maritime Bldg., Singapore 1. WTD 1/71.

34292 — AUSTRIA — Furniture casters,

other hardware incl. springs. Erwin Allram, Werbung, Handel (importer, agent), Salztorgasse 2/14, A-1010 Vienna. WTD 5/71.

34294—VIETNAM — Builder's hardware including screendoor, window hardware. Loi Tin Trading (agent), 61 Pham Ngu Lao, P.O. Box 2229, Saigon. WTD 4/71.

34294—SWITZERLAND—All kinds of quality hardware, smokers' articles, tobacconist sundries, household goods, gadgets, as sold in tobacco, department, hardware stores. Oettinger Imex Ltd.; Attn: Dr. Ernst Schneider, Chairman (importer, dist.), Nauenstrasse 63, 4000 Basel. WTD 8/70.

34295—SWITZERLAND — Fast-moving hardware items sold in department, hardware stores. Requests offers from manufacturers only. Cellpack AG; Attn: Charles Dreifuss, Man. Dir. (dist., mfr.), 5610 Wohlen. WTD 3/70.

Heating apparatus, plumbing fixtures

34320—FINLAND—Novel plumbing fixture fittings and trim (brass goods) for kitchens, bathrooms, water closets; items such as single control faucets, etc. Interested in licensed manufacture or distributorship. Ammus-Sytytin Oy, Attn: John Lindgren, Technical Mgr. (importer, dist., mfr.), Rauma. WTD 11/70.

34320—NETHERLANDS—Malleable fittings, copper & steel; copper & steel pipes; floorplates; air, water, stop cocks. Agency for Common Market. Snikkers' Handelmaatschappij N.V. Attn: C.A. v.d. Linde (importer, dist./exporter), 48 Waalhaven ZZ, or P.O. Box 5062, Rotterdam-22. WTD 4/71.

34336 — NETHERLANDS — Hotwater storage tanks, circulators, new central heating products, components. Agency for Common Market. Snikkers' Handelmaatschappij N.V., Attn: C.A. van der Linde (importer, dist./exporter), 48 Waalhaven ZZ, or P.O. Box 5062, Rotterdam-22. WTD 4/71.

34336—AUSTRIA — Pipe connections of galvanized steel or brass according to German standards, 8, 10, and 12 millimeters for straight, angular, T, cross couplings; all screwed couplings, outside/inside, ¼, ⅜, and ½ in.; newly developed accessory parts for oil heaters, other than oil burners; new designs of boilers for light distilled fuel oil heating, with built-in automatic burner; small hot air equipment with fan & built-in automatic burner (max. 40,000 Kcal/hr.); other advanced accessory parts for heating equipment. Correspondence requested in German. "GOTEC" Apparate-Bau- u. Verkaufsges.m.b.H. (importer), An der Huelben 4, A-1010 Vienna. WTD 6/71 .

Screw machine products

34522 — FINLAND — Special industrial fasteners, including expansion bolts, screw anchors; only latest, sophisticated types desired. Oy Bermic Ab, Attn: Evert Michelsson, Mng. Dir. (importer, dist., agent), Vuorimiehenkatu 3, Helsinki 14. WTD 9/70.

Coating, engraving, allied services

34790—SINGAPORE—Machine for coating printed circuits with lacquer or other adhesive. A. R. Lowe, Dir., Maclaine Watson (Imports) Pvt. Ltd. (importer, dist., agent), P.O. Box 695, Maritime Bldg., Singapore 1. WTD 1/71.

Fabricated wire products

34819 — JAMAICA — Paper Clips. T. Geddes Grant (Dist.) Ltd., Attn: Mgr., Office Equip. Dept. (importer, dist., agent), 109 Marcus Garvey Dr., Kingston 11. WTD 8/70.

Fabricated metal products

34942 — SWEDEN — Valves, regulators for process control. Grapendal Ingenjörsbyrå AB (importer, agent, engineering firm), 90 Storholmsbackarna, S-127 43 Skärholmen. WTD 5/71.

34944—NETHERLANDS—Copper, radiator, steam, safety & return valves; gas venting double walls. Agency for Common Market. Snikkers' Handelmij N.V., Attn: C.A. v.d. Linde (importer, dist./exporter), 48 Waalhaven ZZ, or P.O. Box 5062, Rotterdam-22. WTD 4/71.

34946—FINLAND—Quick connectors for pneumatic hose. Oy Bermic Ab, Attn: Evert Michelsson, Mng. Dir. (importer, dist.), Vuorimiehenkatu 3, Helsinki 14. WTD 9/70.

34980 — NETHERLANDS — Copper & steel pipes, fittings. Agency for Common Market. Snikkers' Handelmij N.V., Attn: Mr. C.A. v.d. Linde (importer, dist./exporter), 49 Waalhaven ZZ, or P.O. Box 5062, Rotterdam-22. WTD 4/71.

Engines, turbines

35190—ARGENTINA — Industrial internal combustion engines. Exclusive sales representation. Fred Schaupp, Tecnomac S. A. (importer, agent), Cerrito 822, 9° piso, Buenos Aires. WTD in prep.

Farm machinery

35220—ARGENTINA—Farm machinery, equipment for advanced farming applications, such as frost control equipment, citrus fruit tree pruning machines, etc. Guillermo Suarez S. A. Departamento Representaciones (importer, agent), Perú 425, Buenos Aires. WTD in prep.

35222 — FRANCE — Automatic water spraying equipment for lawns, green spacse. ARADEV (importer), 44 rue Pierre Corby, 92—Clamart. WTD in prep.

35227—FRANCE—Equipment for maintenance of lawns, green spaces (mowers, cultivators). ARADEV (importer), 44 rue Pierre Corby, 92—Clamart. WTD in prep.

Construction, mining, materials handling machinery, equipment

35319 — FINLAND — Construction machinery, equipment, including water well and blast hole drills, handheld compaction equipment, drawn ditchers, trenchers, contractors' handheld tools, graders; only latest, sophisticated equipment desired. Oy Bermic Ab, Attn: Evert Michelsson, Mng. Dir. (importer, dist., agent), Vuorimiehenkatu 3, Helsinki 14. WTD 9/70.

35319—PANAMA—Air tools. PAK-AL, S.A. (importer, agent, retailer), Box 11-190, Panama 6. WTD 4/71.

35370—HONG KONG—Fork-lift trucks. General Equipment Co., Ltd. (importer, dist., agent), 1922 Prince's Bldg., Chater Rd., Hong Kong. Cable: EQUIPCO. WTD 6/70.

Metalworking machinery

35410 — GERMANY — Machine tools, metal cutting type. Agency for Eastern Europe exclusively. E. Van Hazebrouck K.G. (importer, agent, export agent), 7 Goetheplatz, 6 Frankfurt/Main. WTD 6/71.

35410—PHILIPPINES—Milling machinery, equipment. Aquair Corp. (importer, dist., agent), 604 Cardinal Bldg., Herran & Agoncillo Sts., Ermita Manila. WTD in prep.

35420 — GERMANY — Machine tools, metal forming type. Agency for Eastern Europe exclusively. E. Van Hazebrouck K.G. (importer, agent, export agent), 7 Goetheplatz, 6 Frankfurt/Main. WTD 6/71.

35421 — SINGAPORE — Machines for punching holes in printed circuits. A. R. Lowe, Dir., Maclaine Watson (Imports) Pvt. Ltd. (importer, dist., agent), P.O. Box 695, Maritime Bldg., Singapore 1. WTD 1/71.

35442—GUATEMALA—Industrial molds, tire molds. Llanteca, S.A. (mfr., agent), 41 Calle 7-25, Zona 8, Guatemala City. WTD 6/71.

35451—PORTUGAL—Thread cutting dies, taps, end milling cutters, spiral drills. Fundiçao de Oeiras—Fundiçao e Construçao Mecanicas, S.A.R.L. (importer, mfr.), Apartado 2711, Lisbon 2. WTD 3/71.

35451—SINGAPORE—Devices for cutting copper sheets for use in printed circuit manufacture. A. R. Lowe, Dir., Maclaine Watson (Imports) Pvt. Ltd. (importer, dist., agent), P.O. Box 695, Maritime Bldg., Singapore 1. WTD 1/71.

35480—PHILIPPINES—Chain saws. Star Exim, Inc. (importer, dist., agent), 26 Scout Tuason St., Quezon City. WTD in prep.

35482—PHILIPPINES—Pneumatic tools. Star Exim, Inc. (importer, dist., agent), 26 Scout Tuason St., Quezon City. WTD in prep.

35482 — ARGENTINA — Power driven hand tools. Exclusive agency. Arnaldo N. Parodi (agent), Milton 327, Buenos Aires. WTD in prep.

35482—FINLAND—Pneumatic hammers, other hand tools; only latest, sophisticated equipment desired. Oy Bermic Ab, Attn: Evert Michelsson, Mng. Dir. (importer, dist., agent), Vuorimiehenkatu 3, Helsinki 14. WTD 9/70.

35482 — PANAMA — Pneumatic tools. PAK-AL, S.A. (importer, agent, retailer), Box 11-190, Panama 6. WTD 4/71.

35484—THAILAND—Turbo spare parts cleaning machines for automotive, industrial maintenance uses. Requests catalogs, brochures, c.i.f. Bangkok prices. Amorn Supplies Ltd. Partnership (importer, dist., agent), 52/3 Pun Rd., Off Silom Rd., Bangkok. WTD in prep.

35485—SWITZERLAND — Drawing machines, related instruments. Kaegi AG; Attn: Mr. Zeller (dist., agent), Hermetschloostrasse 77, 8048 Zurich. WTD in prep.

Special industry machinery

35510—IRAN—Grass dehydrating plant for cattle feed. Requests catalogs. Irano-Anglo Commercial Co. Ltd. (importer, dist., agent), 194-196 Old Shemiran Rd., Tehran. WTD 8/70.

35513 — GERMANY — Machinery equip-

ment for breweries, bottling, cleaning etc. U. von Geyr (agent), 8 Fasanenweg, 3551 Wehrshausen. WTD 6/71.

35540—INDIA—Paper converting equipment of all types including laminating, coating, extrusion coating, metal coating, waxing, bitumenising machines. Indo-Europa Trading Co. Pvt. Ltd. (mfr., agent, retailer), Aga Khan Bldg., 9 Dalal St., Fort, Bombay 1. WTD 8/70.

35550 — INDIA — Sheet-fed and reel-fed offset printing machines of all types, rotary printing machines for business forms, other continuous stationery, sheet-fed rotary printing machines, book sewing machines, letterpress cylinder printing machines of larger sizes and process block making and photo-litho plate making cameras, equipment. Indo-Europa Trading Co. Pvt. Ltd. (mfr., agent, retailer), Aga Khan Bldg., 9 Dalal St., Fort, Bombay 1. WTD 8/70.

35591 — SWITZERLAND — Equipment, apparatus, instruments for chemical, food, pharmaceutical manufacturing industries, all kinds. Skan AG; Attn: G. Grauers, Dir. (dist., agent), Thannerstrasse 35, 4009 Basel. WTD 7/71.

35594—GUATEMALA — Tire recapping, repairing machinery. Llanteca, S.A. (importer, mfr., agent), 41 Calle 7-25, Zona 8, Guatemala City. WTD 6/71.

35595—ISRAEL — Automatic machines, related accessories for bevel edging of optical lenses. Exclusive agency. DIA-TOOL—Diamond Tool Manufacturers Ltd. (mfr., exporter), 21 Ezra St., Bnei-Braq. WTD in prep.

General industrial machinery

35611 — GERMANY — Industrial pumps for chemical industry. Triplan Ingenieur Gesellschaft mbH & Co. K.G. (agent, engineer office), 95 Koenigsteiner Str., 6230 Frankfurt/M-Hoechst. WTD 7/71.

35611 — GERMANY — Rotary vacuum pumps. Lewa Herbert Ott (mfr., exporter), 10 Ulmer Strasse, P.O. Box 27, D-7250 Leonberg, Baden-Wuerttemberg. WTD 7/70.

35611 — PHILIPPINES — Industrial pumps. Aquair Corp. (importer, dist., agent), 604 Cardinal Bldg., Herran & Agoncillo Sts., Ermita, Manila. WTD in prep.

35611 — PHILIPPINES — Pumps with mining applications (slurries); rubber lined; centrifugal type with ratings of 5,000; 10,000; 20,000 gals. per min. Honiron Philippines Inc., Attn: Mr. Nombres (importer, dist., agent), Honiron Bldg., Pasong Tamo Ext., P.O. Box 438, Makati Commercial Center, Makati, Rizal. WTD 5/71.

35613 — HONDURAS — Water pumps, tanks for water distribution (domestic use). Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

35613—PHILIPPINES—Domestic water systems, pumps. Aquair Corp. (importer, dist., agent), 604 Cardinal Bldg., Herran & Agoncillo Sts., Ermita, Manila. WTD in prep.

35613 — VIETNAM — Gasoline powered agricultural pumps. World Wide Agency (agent), 49 Ton That Dam (2nd Floor) P.O. Box 264, Saigon. WTD in prep.

35614—GERMANY—Piston and rotary compressors, dryer package. Lewa Herbert Ott (mfr., exporter), 10 Ulmer Strasse, P.O. Box 27, D-7250 Leonberg, Baden-Wuerttemberg. WTD 7/70.

35614 — GUATEMALA — Air compressors. Llanteca, S.A. (mfr., agent), 41 Calle 7-25, Zona 8, Guatemala City. WTD 6/71.

35614 — PANAMA — Air compressors. Pak-Al, S. A. (importer, agent, retailer), Box 11-190, Panama 6. WTD 4/71.

35615—FRANCE—Chemical, liquid gas pumps. Metra S.A. (dist., agent, retailer), 93 rue Ampère, 75—Paris 17. WTD 5/71.

35642 — PANAMA — Air washers. (importer, agent, retailer), Box 11-190, Panama 6. WTD 4/71.

35642 — GERMANY — Air purification equipment of all kinds. Prices c.i.f. Hamburg or Bremen. Ingenieurbuero Rudolf Weiser KG (agent), Postfach 705, 505 Porz/Rhein. WTD 1/71.

35673—ITALY—Copper equipment (possibly utilizing some new welding process) for heating systems, as well as other related accessories. Tarrone Aldo Successori (dist., retailer), Via Cecchi 3, 10152 Torino. WTD 6/71.

35690 — AUSTRIA — Packaging and wrapping machines; labeling and marking machines; including aerosol packing; bag and pouch forming, filling, sealing machines; box, case, carton and tray setting up, loading, lining, closing, sealing machines. PACKMATIC, Automatische Verpackungsanlagen Vertriebsgesellschaft m.b.H. (agent), Muthgasse 16A, A-1190 Vienna. WTD in prep.

35690—THAILAND — Packaging, wrapping machines such as blister packing, vacuum sealing, foil and cellophane wrapping, for use in packing pharmaceutical tablets, capsules, small toys, writing instruments and accessories, cosmetics, drugs. Requests catalogs, brochures, c.i.f. Bangkok prices. The Direct Trading Corp. Ltd. (importer, dist.), 4th Fl., B & P Bldg., 183 Sukhumvit Rd., P.O. Box 2673, Bangkok. WTD in prep.

Office, computing, accounting machines

35731—ARGENTINA—Low cost, compact computers for commercial application, such as preparation of payrolls, interest rates, maturity dates of promissory notes, etc. Mr. Leon Faerman Comptables (agent), Sarmiento 2226, Piso 1°, Dpto. "A", Buenos Aires. WTD in prep.

35733 — GERMANY — EDP periphery equipment, data acquisition equipment such as analog digital converters, multiplexers, etc. Microbit Gesellschaft f. Elektronische Anlagen u. Systeme mbH. (importer, dist., agent), 6 Hasenpfad, 6078 Zeppelinheim. WTD 6/71.

35733—FRANCE—Attachment for electronic computing equipment (peripherals): input and output devices; devices applying to magnetic tapes, diskpacks, perforated tapes. Block-Descat V. (importer, agent, exporter), 92-Marnes-la-Coquette. WTD 6/71.

35740 — SWITZERLAND — Automatic cashing devices, possibly with built-in television supervision, optical or data reading system for application in banks, department stores, post offices, etc. Guy Westermann (dist., agent), Belicherweg 7, 8002 Zurich. WTD in prep.

Service industry machinery

35852—ITALY—Copper equipment (possibly utilizing some new welding process) for air conditioning system, other related accessories. Tarrone Aldo Successori (dist., retailer), Via Cecchi 3, 10152 Torino. WTD 6/71.

35852—ARGENTINA—Air conditioners; room, household. Possible license agreement. Correspondence requested in Spanish. Saccol S.A. (c/o Ing. José M. Sala) (mfr.), Alvarez Jonte 4028, Buenos Aires. WTD in prep.

35852 — HONDURAS — Airconditioning units; household, commercial. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

35853 — THAILAND — Refrigeration equipment. Requests catalogs, c.i.f. Bangkok prices. Manus Import Export Ltd. Partnership (importer, dist., agent), 60/2 Sukhothai Soi 1, Rajvithi Rd., Bangkok. WTD 4/71.

35892 — CANADA — Pollution control equipment. Exclusive agency for western Canada. Overseas Monitor Corp. Ltd., (importer, dist., agent), 453 Dunbar St., Vancouver 8, B. C. WTD 6/71.

35892—GERMANY—Water purification equipment. Prices c.i.f. Hamburg or Bremen. Ingenieurbuero Rudolf Weiser KG (agent), Postfach 705, 505 Porz/Rhein. WTD 1/71.

35892 — HONDURAS — Floor polishing machines, similar appliances. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

35893 — HONDURAS — Commercial, industrial vacuum cleaners. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

Electric transmission, distribution equipment

36120—PHILIPPINES—Generating sets, 10 KVA and above. Star Exim, Inc. (importer, dist., agent), 28 Scout Tuason St., Quezon City. WTD in prep.

36122 — HONDURAS — High voltage transformers. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

36123 — HONDURAS — 110/220 Volt transformers. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

36130 — SOUTH AFRICA — Pressure switches with capacity of 20-80 P.S.I.; flow switches with capacity of 1-50 gal. per min. Flawn Thomas Turf Irrigation Co. (Pty.) Ltd., Attn: P.T. Flawn Thomas (importer, dist., agent), P.O. Box 41092, Craighall, Johannesburg. WTD 6/71.

36131 — SWITZERLAND — Relays for electronic applications. Elbatex AG; Attn: Mr. Gerny (dist., agent), Alb. Zwyssigstrasse 28, 5430 Wettingen. WTD in prep.

Electrical industrial apparatus

36210—HONG KONG—Electric generators, gas or diesel, with capacity up to

3,000 KW. General Equipment Co., Ltd. (importer, dist., agent), 1922 Prince's Bldg., Chater Rd., Hong Kong. Cable: EQUIPCO. WTD 6/70.

36211 — SWEDEN — Fractional horsepower motors. geared, non-geared small electric motors; all stepping motors, also other specialities such as torque motors, printed circuit motors, brushless DC motors. SPECIALMASKINER AB (importer, dist., agent), Box 336, S-401 25 Göteborg 1. WTD 5/71.

36213—VIETNAM—Gasoline generator sets (small size). World Wide Agency (agent), 49 Ton That Dam (2nd floor) P.O. Box 264, Saigon. WTD in prep.

36215—TAIWAN—Motor-generator sets. Sing Long Hong Co., Ltd. (importer, dist., agent), 26, Hsin-shen South Rd., Sec. 3, Taipei 106. WTD in prep.

Household appliances

36311 — HONDURAS — Electric ovens, ranges. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

36321—HONDURAS—Household refrigerators. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

36322—HONDURAS — Household, commercial freezers. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

36331—HONDURAS — Household washing machines, dryers and combination machines. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

36343—HONDURAS — Household irons. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

36344—GERMANY—Finished parts (to be built-in) drawn, turned, forged, sintered, cast, pressed and jet moulded; made of metal and plastics; for electrical industry. Ing. Alfred Matthei & Sohn (agent), 56 Wuppertal-Barmen, Maerkische Str. 123g. WTD 2/71.

Electric lighting, wiring equipment

36410—HONDURAS—Fluorescent lamps, fixtures. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

36410—VIETNAM—Fluorescent lamps. World Wide Agency (agent), 49 Ton That Dam (2nd Floor) P.O. Box 264, Saigon. WTD in prep.

36425—HONDURAS—Mercury lamps for street lighting. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

36430—HONDURAS—Electrical wiring, supplies, devices. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

Radio, television receiving sets

36515—VENEZUELA—Audio equipment for educational purposes. Telecomunicaciones y Controles C.A. (Telcon) (importer, agent), Edificio Telcon, avenida Avila, entre 5a y 6a transversales, and Apartado 60013, Caracas. WTD 1/71.

Communications equipment

36621—THAILAND—Transceivers, SSB, 100-200 W. RF output, 4 channel; VHF handy talkie sets, 3-5 W. output, 4 channel. Requests catalogs, brochures, c.i.f. Bangkok prices. Royal Trade Co. Ltd. (importer, dist.), 35/9 Chalerm Loke Trade Center, Rajdamri Rd., Bangkok 5. WTD in prep.

Electrical machinery, equipment, supplies

36946 — GERMANY — Industrial armatures. Prices c.i.f. Hamburg or Bremen. Ingenieurbuero Rudolf Weiser 705 Postfach. 505 Porz/Rhein. WTD 1/71.

Motor vehicles, motor vehicle equipment

37130—ARGENTINA — Six-wheel drive all terrain vehicle (A.T.V.). Possible licensing arrangement. Correspondence requested in Spanish, but English acceptable. Héctor R. Facal y Cia. S.C.A. (dist.), Av. Libertador Gral. San Martín s/n (acceso), Coronel Suárez, Provincia de Buenos Aires. WTD in prep.

Transportation equipment

37910 — ARGENTINA — House camping wagon trailers. Possible licensing arrangement. Correspondence requested in Spanish but English acceptable. Héctor R. Facal Y Cía. S.C.A. Distributor, Av. Libertador Gral. San Martín s/n (acceso) CORONEL SUAREZ, Prov. Buenos Aires. Argentina

Engineering, laboratory, scientific, research instruments

38110—SWITZERLAND—Highly sophisticated research, analytical instruments for clinical, chemical laboratories. Digitana AG; Attn: Mr. Haab (dist., agent), Gertrudstrasse 24, 8003 Zurich. WTD 3/71.

38111—SWEDEN—Aeronautical, navigational instruments. Ostermans Aero Aktiebolag (importer, dist., agent), Fack, S-161 10 Bromma 10. WTD in prep.

38112 — BRAZIL — Nuclear instruments for teaching, research in nuclear field. Atomed Equipamento Nuclear Ltda. Av. Rio Branco, 257 sl/201-202, Rio de Janeiro. WTD in prep.

38112—CANADA—Environmental chambers (laboratory test ovens, dryers, freezers). Exclusive agency. Overseas Monitor Corp. Ltd. (importer, dist., agent), 453 Dunbar St., Vancouver 8, B.C. WTD 6/71.

38112 — FRANCE — Scientific electronic equipment and instruments for laboratories (biological, chemical, biochemical, electronic). Jarre-Jacquin (importer, agent), Recherches et Laboratoires, 18, rue Pierre et Marie Curie, 75-Paris 5. WTD 11/70.

38112 — SWITZERLAND — Laboratory, scientific instruments, in particular for chemical, food, pharmaceutical industries. Skan AG; Attn: G. Grauers, Dir. (dist., agent), Thannerstrasse 35, 4009 Basel. WTD 7/71.

38112—THAILAND—Laboratory, scientific instruments such as centrifuges, balancers, ovens. Requests catalogs, c.i.f. Bangkok prices. Universal Chemicals & Trading Co. Ltd. (importer, dist., agent), 118/2 Yommaraj Sukhum Lane, Suapa Rd., Bangkok. WTD 6/71.

38112 — VENEZUELA — Laboratory equipment for educational purposes. Telecomunicaciones y Controles C.A. (Telcon). (importer, agent), Edificio Telcon, Avenida Avila, entre 5a y 6a transversales, Altamira, and Apartado 60013, Caracas. WTD 1/71.

Instruments for measuring, controlling, indicating physical characteristics

38211—SWEDEN—Radiation measuring, detecting apparatus; similar equipment. Ostermans Aero Aktiebolag (importer, dist., agent), Fack, S-161 10 Bromma 10. WTD in prep.

38216—THAILAND—Fire detector systems complete with smoke detectors, alarm systems for use in textile industries. Requests catalogs, c.i.f. Bangkok prices. Berli Jucker Co., Ltd., Attn: Mr. Vichien Nipatcharukul (importer, dist.), 542/1 Ploenchit Rd., Bangkok. WTD 9/70.

Optical instruments, lenses

38311—AUSTRALIA—Optical character recognition device which converts visual image to identifiable digital form by means of image's property to reflect or transmit light. Composition Systems Pty. Ltd., (importer, mfr., agent), 58-72 Queen's Bridge St., P.O. Box 770 G, South Melbourne 3205, Victoria. WTD 5/71.

Surgical, medical, dental instruments

38410 — BRAZIL — Medical instruments based on use of radiations from radioactive substances (gamma-therapy, others). Atomed Equipamento Nuclear Ltda. (agent), Av. Rio Branco, 257 sl/201-202, Rio de Janeiro. WTD in prep.

38410—SWITZERLAND—Surgical, medical instruments, apparatus, all kinds. Skan AG; Attn: G. Grauers, Dir. (dist., agent), Thannerstrasse 35, 4009 Basel. WTD 7/71.

38410—SWITZERLAND—Advanced surgical and medical instruments and apparatus, all kinds, incl. orthopedic, suture, eye, ear, nose and throat instruments, syringes; anesthesia; transfusion; operating instruments; all kinds, except sophisticated electronic, monitoring equipment. Margot & Jeannet SA; Attn: Claude Rosset, Dir. (importer, dist., retailer), Pré-du-Marché 2-4, 1000 Lausanne. WTD 7/71.

38410—SWITZERLAND — Oilfree compressors for medical, dental use, as well as for application with computers. Hch. Lips; Farbspritzapparate + Kompressoren (dist., agent), Stampfenbachstrasse 121, 8035 Zurich. WTD in prep.

38410—SWITZERLAND—Surgical, medical instruments, apparatus, all kinds. Requests offers from manufacturers only. Cellpack AG; Attn: Charles Dreifuss, mng. dir., (dist., mfr.), 5610 Wohlen. WTD 3/70.

38421—SWITZERLAND—Novelty surgical appliances, supplies; orthopedic and prosthetic appliances, respirators, resuscitators, inhalators, incubators; all kinds, except sophisticated electronics, monitoring. Margot & Jeannet SA; Attn: Claude Rosset, Dir. (importer, dist., retailer), Pré-du-Marché 2-4, 1000 Lausanne. WTD 7/71.

38421—SWITZERLAND—Hospital, med-

ical supplies, apparatus, disposables; sanitary equipment for industry, medical use, hospitals. Skan AG; Attn: G. Grauers, Dir. (dist., agent), Thannerstrasse 35, 4009 Basel. WTD 7/71.

38421—SWITZERLAND—Hospital supplies, appliances, disposables for medical use. Requests offers from manufacturers only. Cellpack AG; Attn: Charles Dreifuss, Mng. Dir., (dist., mfr.), 5610 Wohlen. WTD 3/70.

38423—SWITZERLAND—Advanced industrial personal safety, security devices, all kinds. AEGIS, Corp. for Protection of Commerce & Industry, Attn: G. L. Berkin (importer, agent, security consultants), 8 rue Bovy-Lysberg, P.O. Box 4, 1211 Geneva 11. WTD in prep.

38430—VIETNAM—Dental instruments, equipment, supplies. Loi Tin Trading (agent), 61 Pham Ngu Lao, P.O. Box 2229, Saigon. WTD 4/71.

Toys, amusement, sporting goods

39410—SWITZERLAND—Gadgets, premiums, games, toys, novelties, all kinds. Francis Nicolet (importer, agent), 1041 Bettens. WTD 6/71.

39410—SWITZERLAND—All kinds of quality gadgets, novelties, games, hobby articles, sold in tobacco, department, hardware stores. Oettinger Imex, Ltd.; Attn: Dr. Ernst Schneider, Chairman (importer, dist.), Nauenstrasse 63, 4000 Basel. WTD 8/70.

39491—CANADA—Fishing tackle, equipment. J. W. Green & Co. Ltd., Attn: Patrick Duncan (dist., agent), 12 Shuter St., Suite 305, Toronto, Ontario. WTD in prep.

39492—CANADA—Golf equipment, accessories. J. W. Green & Co. Ltd., Attn: Patrick Duncan (dist., agent), 12 Shuter St., Suite 305, Toronto, Ontario. WTD in prep.

39510—JAMAICA—Pens, desk sets, mechanical pencils; onyx desk sets. T. Geddes Grant (Dist.) Ltd. Attn: Mgr., Office Equip. Dept. (importer, dist., agent), 109 Marcus Garvey Dr., Kingston 11. WTD 8/70.

39521—JAMAICA—Lead pencils. T. Geddes Grant (Dist.) Ltd. Attn: Mgr., Office Equip. Dept. (importer, dist., agent), 109 Marcus Garvey Dr., Kingston 11. WTD 8/70.

39530—FRANCE—Marking devices. Sofadi (dist., mfr., exporter), 43, rue de Stalingrad, 93-Montreuil s/Bois. WTD 5/71.

39530—FRANCE—Marking devices: industrial metal marking. INTRAMA (importer, mfr.), 12 passage Courat, 75—Paris 20e. WTD 3/71.

39530—JAMAICA—Marking devices such as stencils. T. Geddes Grant (Dist.) Ltd. Attn: Mgr., Office Equip. Dept. (importer, dist., agent), 109 Marcus Garvey Dr., Kingston 11. WTD 8/70.

39550—JAMAICA—Carbon paper. T. Geddes Grant (Dist.) Ltd., Attn: Mgr., Office Equip. Dept. (importer, dist., agent), 109 Marcus Garvey Dr., Kingston 11. WTD 8/70.

Manufacturing industries

39933—SWITZERLAND—Advertising specialties, premiums, signs, stickers, novelties, gadgets, all kinds. Cadox; Attn: Claude Girardet (importer, dist., agent), Avenue de Chailly 6-8, 1012 Lausanne. WTD 5/70.

39991—HONDURAS—Chemical fire extinguishers, all types. Exclusive representation. Nacional Comercial, S. A. de C. V. (importer, dist., agent), Apartado Postal 347, Tegucigalpa, D.C. WTD in prep.

39999—SWITZERLAND—Miscellaneous novelties, gadgets, for automotive stationery, hardware stores. Cadox; Attn: Claude Girardet (importer, dist., agent), Avenue de Chailly 6-8, 1012 Lausanne. WTD 5/70.

39999—SWITZERLAND—Genuine novelties, fast-moving quality consumer goods for sale through department, hardware stores, drugstores, stationeries. Requests offers from manufacturers only. Cellpack AG; Attn: Charles Dreifuss, Mng. Dir. (dist., mfr.), 5610 Wohlen. WTD 3/70.

39999—SWITZERLAND—Smokers' requisites, pipes, genuine novelties for sale through tobacco stores; quality giftware, premiums, gadgets, all kinds, for sale through department stores, hardware, stationery, household goods stores. Oettinger Imex Ltd.; Attn: Dr. Ernst Schneider, Chairman (importer, dist.), Nauenstrasse 73, 4000 Basel. WTD 8/70.

39999—SWITZERLAND—Gadgets, novelties, all kinds, incl. pillar letter boxes for individual homes. Francis Nicolet (importer, agent), 1041 Bettens. WTD 6/71.

Visiting Buyers And Officials

CANADA—Terrence W. Wilkie, representing T. & M. Wholesale Co., Box 5403, Station "F", Ottawa, Ontario, interested in **Mass-produced picture frames.** Aug. 22 via N.Y. and Philadelphia—c/o New York or Philadelphia Field Office until Sept. 6.

ISRAEL—Y. Ben-Gal, Manager, Hamezayed LTD., 4 Shvil Hamifaal, Kiryat Ham'lacha, Tel Aviv, interested in purchasing **camping equipment including possible initial order of 1,000 camping tents.** Aug. 3 via Chicago for one month—c/o Max Hayes, 3456 W. Crain Street, Chicago, (Tel. 312-OR4-9386).

ISRAEL—Shimon DeHaas, 2 Hanita Street, Kiryat Bialik, Haifa, interested in **paper and plastic packaging material and equipment.** Arriving New York July 30 for 2 months. c/o Chaim Heller, 277 Park Ave., Suite 1506, New York, N.Y. 10017. Itinerary: Open. WTD in preparation.

SOUTH AFRICA—H. S. Brook, Canine Security (Pty.) Ltd., P.O. Box 9, Glenashley, Natal, interested in **industrial security equipment** and protective devices. Arriving New York Aug. 5 for three weeks. c/o South African Embassy, 3051 Massachusetts Ave., NW., Washington, D.C. 20008. Itinerary: New York, Washington, Pittsburgh, Chicago, Los Angeles, San Francisco. WTD 6/71.

SOUTH AFRICA—N.A. Filmer, Polycell Products South Africa Ltd., interested in **commercial adhesives** and **do-it-yourself products** for hardware stores, Aug. 15 via New York for one month. Itinerary: Kansas City, Chicago, Cleveland, New York. WTD in preparation.

Other Foreign Official Tenders

AUSTRALIA—The Director General of the Commonwealth Department of Works has extended bid deadline on Tender No. 49-70/71 to Aug. 26. Tender or specification is for electrical and mechanical works on **Phase I of the Ramu I Hydro-Electric Project,** Papua, New Guinea. All tenders should be sent to Director of Works, Commonwealth Department of Works, Commonwealth Centre (7th floor) Spring and Latrobe Sts., Melbourne, Victoria 3000. Copies of specification available at Power Equipment Program Office, U. S. Dept. of Commerce, Washington, D.C. 20230. (202-967-2861)

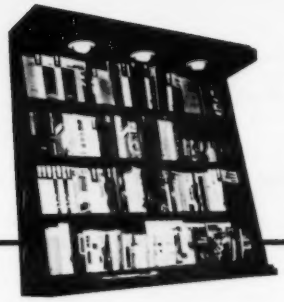
ECUADOR: The Ministry of Public Works and Communications has issued a tender for the supply installation, maintenance services, spare parts and training for an **earth satellite station.** Bid deadline is 4 p.m. Sept. 8. Foreign firms may bid through their representatives in Ecuador. Copies of tender announcement and specifications are available ONLY from the Secretaria Del Comite De Licitaciones Del Ministerio De Obras Publicas Y Communicaciones, Edificio Del Ministerio, Calle Chile 167, Quito, Ecuador.

GREECE: The Ministry of Commerce has issued Tender No. 4/684/1971 for the supply of **two TV radio link systems.** Bid deadline is Aug. 24. Copies of tender announcement and specifications are available from the Ministry of Commerce, Fourth Directorate of State Purchases, 75 Solonos St., Athens or on a short-term loan basis from the Communication Division, BDC-720, U.S. Dept. of Commerc,
GREECE: The Ministry of Commerce Washington, D.C. 20230 (202-967-4823)

GREECE: The Ministry of Commerce, Fourth Directorate of State Purchases, has issued tender No. 4/678/71 for the supply of 41 **transceivers.** Bid deadline is Aug. 23. Bid should offer 41 motorcycle transceivers 30-50 MHZ two channel FM 15 watts output. Copies of tender announcement and specifications are available from the Ministry of Commerce, Fourth Directorate of State Purchases 75 Solonos St. or on a short-term loan basis from the Communications Division, BDC-720 Room 4320, U.S. Dept. of Commerce, Washington, D.C. 20230 (202-967-4823)

INDIA—The Director General, Supplies and Disposals has issued tender No. ES-1/202/31/170/Cell 1513 for the supply of **forty thousand three way plugs** type 3A. Sept. 16 is bid deadline. Copies of tender announcement and specifications are available from the India Supply Mission, 2536 Massachusetts Ave. N.W., Washington, D.C. 20008 for $2 or on a short-term loan basis from the Communications Division, BDC-720, U.S. Department of Commerce, Washington, D.C. 20230. (202-967-4823).

IVORY COAST—The Government has issued a call for the preselection of tenderers for the **construction of schools.** World Bank financing. The value of the project is approximately $10.9 million. Interested firms must apply no later than Sept. 1 to: Societe SOCOTEC, Boite Postale 635, Abidjan. All correspondence must be in French.



New Publications

When ordering any publication, indicate title and series designation, if indicated, and make checks or money orders payable to the Superintendent of Documents. Orders should be sent to the U.S. Department of Commerce, Washington, D.C. 20230, or to any of its field offices.

DOMESTIC AND INTERNATIONAL BUSINESS

Bureau of Domestic Commerce

Marketing information guide. A monthly annotated bibliography. July 1971. Vol. 18, No. 7. Annual subscription $4.50 ($1.25 more for foreign mailing.) Single copy 40¢.

Construction review. Monthly industry report. June 1971. Annual subscription $6.50 ($1.75 more for foreign mailing). Single copy 55¢.

Copper. June 1971. 1970 annual statistical supplement. 20pp. 25¢. This 15th annual issue of the Copper Industry Report consolidates in one publication the basic data published in the last four quarterly issues, together with a summary of statistics published in previous annual issues.

Bureau of International Commerce

International Marketing Information Service

The reports in this series cover a broad range of export marketing information organized along both product and geographic lines. The service includes **Exhibitor's Export Marketing Guide, World Markets for U.S. Exports,** a service that reviews specific products/country marketing opportunities other than those involved in commercial exhibitions; and **Country Market Digest,** a service that reviews in broader industry and product category terms the "Best Prospects" for American exporters in individual countries.

World Markets for U.S. Exports

Food processing and packaging machinery and equipment—Ecuador (IMIS 71-218). 12pp. 10¢.

Food processing and packaging machinery and equipment—Spain (IMIS 71-223). 16pp. 10¢.

Food processing and packaging machinery and equipment—Sweden (IMIS 71-224). 16pp. 10¢.

Food processing and packaging machinery and equipment—Trinidad and Tobago (IMIS 71-226). 12pp. 10¢.

Foreign Economic Trends. Annual subscription $15 ($6 additional for foreign mailing). Single copy 10¢. Commercial reports from U.S. embassies abroad—available on a subscription basis immediately on receipt from overseas. This new series of from 100 to 150 reports a year presents current business and economic development in every country that offers a present or potential market for U.S. goods.

South Africa (ET 71-071). 8pp.
Zambia (ET 71-073). 12pp.
Malawi (ET 71-072). 8pp.
New Zealand (ET 71-074). 12pp.
Argentina (ET 71-075). 8pp.
Ethiopia (ET 71-076). 12pp.

Trade Lists

Listings of foreign business firms, classified under approximately 75 commodity and service groups, are used in locating sales outlets, sources of supply, direct market survey, and other information. The following are newly compiled; others are available. $1 each.

American firms, subsidiaries and affiliates—Brazil.
American firms, subsidiaries and affiliates—Singapore.
State trading organizations—Romania.

ECONOMIC AFFAIRS

Bureau of the Census

County Business Patterns 1970:
Alaska (CBP-70-3). 30pp. 40¢.
Florida (CBP-70-11). 132pp. $1.25.
Hawaii (CBP-70-13). 35pp. 40¢.
Illinois (CBP-70-15). 175pp. $1.50.
Kansas (CBP-70-18). 97pp. $1.
Michigan (CBP-70-24). 152pp. $1.25.
New Jersey (CBP-70-32). 129pp. $1.25.
New York (CBP-70-34). 210pp. $1.75.
North Carolina (CBP-70-35). 160pp. $1.25.
Ohio (CBP-70-37). 202pp. $1.75.
Pennsylvania (CBP-70-40). 212pp. $1.75.
Texas (CBP-70-45). 249pp. $2.
Virginia (CBP-70-48). 149pp. $1.25.
Congressional District Data. Districts of the 92nd Congress:
Louisiana (CDD-92-16). 8pp. 25¢.
Missouri (CCD-92-23). 11pp. 25¢.
Small-area data notes. Vol. 6, No. 6. 8pp. 10¢.

Construction and Housing

1970 Census of Housing

Block Statistics. The following reports present population and housing data for each of about one-and-a-half million blocks located in 236 of the Nation's cities with 50,000 or more residents and the cities' urbanized areas (the cities' built-up suburbs) as well as for a number of other areas that contracted with the Census Bureau for special tabulations. Included with each report is a map showing the location of each of the numbered blocks and of the city's tracts.

Boise City, Idaho urbanized area (HC(3)-64). 38pp., seven maps. $1.75.
Las Vegas, Nev. urbanized area (HC(3)-146). 48pp., twelve maps. $2.50.
Reno, Nev. urbanized area (HC(3)-147). 36pp., eight maps. $1.75.

General Housing Characteristics

New Hampshire (HC(1)-A31). 64pp. 65¢.
North Dakota (HC(1)-A36). 56pp. 65¢.
South Dakota (HC(1)-A43). 58pp. 65¢.
Vermont (HC(1)-A47). 47pp. 65¢

Distribution and Services

Weekly retail sales. Estimated sales of U.S. retail stores in the week ending July 17 (CB 71-342). 2pp. 10¢.

Monthly selected services receipts: May 1971 (BS71-5). Annual subscription $1. Single copy 10¢.

Canned food—stocks, pack, shipments: June 1, 1971 (B1-71-4). Annual subscription, including five issues, $1. Single copy 25¢.

Foreign Trade

U.S. foreign trade—general imports: cotton manufactures, May 1971 (FT 130-71-5). Annual subscription $1. Single copy 10¢.

Exports—commodity by country: April 1971 (FT 410-71-4). 432pp. Annual subscription $33 ($8.25 more for foreign mailing). Single copy $2.75.

Puerto Rico and U.S. possessions: February 1971 (FT 800-71-2). Annual subscription $2.50 (75¢ more for foreign mailing). Single copy 20¢.

Bunker fuels: May 1971 (FT 810-71-5). Annual subscription $1. Single copy 10¢. Oil and coal laden in the United States on vessels engaged in foreign trade.

Waterborne exports and general imports: April 1971 (FT 985-71-4). Annual subscription (FT 900, 975, 985, and 986 combined) $3. Single copy 10¢.

Governments

State Government finances in 1970 (GF70 No. 3). July 1971. 66pp. 60¢.

Population

Estimates of the population of the United States to June 1, 1971 (Series P-25, No. 463). 2pp. 5¢.

1970 Census of Population and Housing General Demographic Trends for Metropolitan Areas, 1960 to 1970—Final Reports:

Alabama (PHC(2)-2). 40pp. 30¢.
Colorado (PHC(2)-7). 28pp. 25¢.
Oregon (PHC(2)-39). 30pp. 25¢.

Alphabetical index of industries and occupations. 220pp. $3. This index was developed primarily to classify the industry (the nature of the business of the person's employer) and occupation returns (the type of work in which a person is engaged) of the 1970 Census of Population, the Current Population Survey, and other demographic surveys conducted by the Bureau of the Census during the subsequent decade.

SCIENCE AND TECHNOLOGY

National Oceanic and Atmospheric Administration

Environmental Research Laboratories

A rocket borne instrument to measure electric fields inside electrified clouds (ERL 206-APCL 20). 37pp. 45¢. Development of a rocket-borne instrument to measure electric fields in thunderstorms is described.

National Marine Fisheries Service

Federal aid program activities: 1971. 146pp. Free upon request. Intended to provide State program coordinators and administrators, Federal workers, project personnel, and others concerned with research, development, conservation, and related fields with a convenient reference to the National Marine Fisheries Service grant-in-aid program.

National Ocean Survey

Earthquake information bulletin. May-June 1971. Vol. 3, No. 3. Annual subscription $1.50 (50¢ more for foreign mailing). Single copy 30¢.

National Weather Service

The March-April 1969 snowmelt floods in the Red River of the North, Upper Mississippi, and Missouri Basins (NWS 13). 104pp. $1.25. Illustrations and tables.

National Bureau of Standards

The Effect of time ordering on the Lyman α profile (Monogr. 121). 14pp. 30¢. Using a unified theory of spectral line broadening previously developed, the effects of time-ordering over the complete line profile are investigated. The behavior of the time-ordered thermal average and untime-ordered thermal average are compared.

Technical news bulletin. July 1971. Vol. 55, No. 7. Annual subscription $3 ($1 more for foreign mailing). Single copy 30¢.

U.S. metric study interim report— engineering standards (Spec. Publ. 345-11). 264pp. $2. This report, one of a series prepared pursuant to the U.S. Metric Study Act, is concerned with (1) the relationship between measurement language and engineering standards, and (2) the compatibility of U.S. Standards with corresponding international standards. The study compares U.S. standards with other national and international standards.

U.S. metric study interim report—the manufacturing industry (Spec. Publ. 345-4). 172 pp. $1.25. This publication reports the results of a study to assess the impacts of increasing metric usage—past, present and future—on U.S. manufacturing industry. The study, conducted pursuant to the U.S. Metric Study Act, is based on responses from more than 2,000 manufacturing companies.

Voluntary Product Standard: Package quantities of toothpaste (PS 50-71). 8pp. 25¢. Covers the net weights of the package quantities recommended for toothpaste having specific gravities within the range of 1.45 to 1.75. This standard also provides for the package quantities of toothpaste having specific gravities below 1.45 and above 1.75.

Simulation of air traffic control radar beacon code assignment plans (Tech. Note 568). 76pp. 70¢. Two types of plans for assigning identity codes to aircraft were tested by simulating in a digital computer a peak day's IFR traffic in the U.S. In one type each Air Route Traffic Control Center assigns codes independently of all the others, while in the other type a single master center makes all the code assignments for the U.S. Four other types of plans are discussed, and an assignment plan of mixed type is proposed for further study. The strategy of simulation and the use of the SIMSCRIPT language are reviewed in an appendix.

Cryogenic flow research facility provisional accuracy statement (Tech. Note 606). 40pp. 45¢. A cryogenic flow research facility was constructed and was first used to evaluate commercially available cryogenic flowmeters operating with liquid nitrogen on a positive displacement principle. The performance of the flow facility was simultaneously being evaluated during the meter tests.

National Technical Information Service

Order the following reports on Government-sponsored research from: National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Make check or money order payable to National Technical Information Service. Price for each document is $3 (microfiche 95¢) unless otherwise specified.

Radiation chemistry (AD-723 940). Defense Documentation Center, Alexandria, Va., 200pp. Bibliography (with abstracts) pertaining to the chemistry of radiation effects on organic, inorganic and polymeric components. Report includes a cross-section of references on instrumentation, and techniques employed in measuring these reactions and their rates. All reports listed are available from NTIS.

Removal of sulfur dioxide from waste gases by reduction of elemental sulfur (PB-200 071). Princeton Chemical Research, Inc., for the National Air Pollution Control Admin., recently recd, paper copy $6. 301 pp.

Environmental pollution: noise pollution-airplane noise, (AD-724 850). Defense Documentation Center, Alexandria, Va., 149pp. Bibliography (with abstracts) dealing primarily with effects of noise exposure on hearing, speech, communications, and community/airport noise. All reports listed are available from NTIS.

The economic impact of conversion to a nonpolluting automobile (PB-199 925). International Research and Technology Corp., Washington, D.C., for the Dept. of Transportation, December 1969 (recently rec'd.), 97pp.

Water: purification and decontamination (AD-725 610). Defense Documentation Center, Alexandria, Va., 99pp. Bibliography (with abstracts) containing references to reports that analyze the purification, distillation, and decontamination of water. Report includes the recycling of water by use of ion exchange, filtration, disinfecting agents, and coagulation. All reports listed are available from NTIS.

Metropolitan water management: case studies and national policy implications (PB-199 493). Urban Systems Research & Engineering, Cambridge, Mass., for the National Water Commission, paper copy $6, 457pp. Studies planning, decision making, and implementation practices in urban-water management in 12 metropolitan areas. Specific recommendations for Federal action to improve financing, personnel practices, operations, availability of data and analyses, and the institutional and legal framework of water planning, decision making, and implementation are included.

Report of the Federal Trade Commission on rates of return in selected manufacturing industries, 1960-69 (PB-199 388). Federal Trade Commission, Washington, D.C., 70pp. Presents (1) rates of return on stockholders' investment for 262 identical companies in 21 selected manufacturing industries, (2) rates of return of the 12 largest companies in 35 industries, (3) rates of return (after taxes) on stockholders' investment for each size group of companies in each of 35 selected industries, and (4) rates of return (after taxes) on stockholders' investment for 40 selected diversified manufacturing companies.

Current trends in merger activity, 1970 (PB-199 434). Federal Trade Commission, Washington, D.C., 32pp.

Federal Trade Commission report on surveys of creditor compliance with the truth in lending act (PB-199 465). Div. of Special Projects, Federal Trade Commission, Washington, D.C., 97pp. Surveys compliance by new- and used-car dealers, TV and appliance dealers, home improvement companies, jewelry stores, and furniture stores.

Manpower implications of alternate patterns of demand for goods and services (PB-200 088). Univ. of Illinois, Urbana, for the Manpower Admin., paper copy $6, 470pp. Develops a general computerized system capable of generating detailed manpower demands from alternate distributions of expenditures reflecting different national priorities. The general system is used to simulate the manpower effects which would be generated by various types of priority choices and expenditure redistributions.

An economic analysis of the aluminum industry (PB-199 789). Charles River Associates, Cambridge, Mass., for GSA, paper copy $6. 353pp. Analyzes the economics of the aluminum industry and develops an econometric model of the aluminum market.

A survey of propulsion systems for low emission urban vehicles (PB-200 144). MITRE Corp., McLean, Va., for the Air Force. 116pp.

State Radiation Control Legislation: 1970 (PB-198 374). By Bureau of Radiological Health, Rockville, Md. 43pp. Reviews legislation approved during the year; legislation defeated or pending; and existing laws or statutes governing ionizing radiation, nonionizing radiation and radiologic technology.

Laser Safety (AD-721 088). By Naval Training Device Center, Orlando, Fla. 43pp. Surveys literature pertaining to laser safety parameters and precautions. Discusses basic features of a laser and recent laser safety legislation. Recommended safe exposure levels are given for the eye and skin.

Study of technical and cost information for gas cleaning equipment in the lime and secondary non-ferrous metallurgical industries (PB-198 137). Industrial Gas Cleaning Institute of Rye, N.Y. for the National Air Pollution Control Admin. Paper, $6. 307pp.

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